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# Pakistan's Infrastructure Capital-Growth Analysis

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## Abstract

**Purpose-** This empirical study facet at Pakistan for the period between 1960 and 2017 in the connection between public investment, public capital stock, private investment, private capital stock, and real GDP.

**Design/Methodology-** Using theoretical and empirical literature assessment, to measure the impact of private investment, private capital stock, government investment, and government capital stock on Pakistan's real gross domestic product, we involved the ARDL Bound tests.

**Findings-** A positive and significant connection was revealed between government investment, a private capital stock with real GDP. Private investment showed a substantial but negative impact in the short run, despite capital stocks indicating a positive and insignificant relationship with Pakistan's RGDP. The long-term consequences showed that the government's capital stocks, public investment, private capital stocks, and RGDP from Pakistan are linked positively and significantly. Private investment, however, has shown harmful and detrimental or insignificant relations with Pakistan's RGDP.

**Practical Implications-** Our study may benefit the Pakistani economy, particularly while useful for academics and researchers to understand the basic concept of 'capital-growth' philosophy.

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## Introduction

The economy of Pakistan is inadequate for long periods to enable faster and high economic growth rates. The economy is experiencing a payment balance problem every few years, though continuing to expand rapidly. This is different from several influential peer countries that evolve for an extended timeframe at higher rates. This inability to sustain growth had been encouraged for Pakistan's aspirations to convert into such a middle-income economy. Why is Pakistan experiencing this boom and busts phenomenon very often? This short-term rise is expected to continue as it is influenced not by increasing consumption spending but by private and public investment.

Consequently, demand in this country grows much more quickly than its availability of products and services, leading to a need for more unsustainable imports. Successive governments have attempted to accelerate prosperity, but they have all ended up with a payment balance crisis. Pakistan is insufficiently growing, and its investment share in GDP is one of the world's weakest at 15%, approximately half of Southern Asia's 30% share. This means insufficient housing, lack of access to enough water and electricity, low quality of schools and hospitals.

Private investment has declined as a share of GDP and is below 10% in Financial Year 2018. The low investment trap and deteriorating productivity of labor also restricted Pakistan's capacity for expansion and prosperity. The reduction in the economic growth capacity is particularly meaningful because it indicates that the economy cannot grow at higher rates enough to generate employment. Pakistan required many changes in several ways to improve labor efficiency and capital accumulation to overcome these problems. The aim is to sustain macroeconomic stability in Pakistan. Persistent macroeconomic stability has hindered the country's savings and private investment, contributing to low output levels and fluctuating productivity. The fact that the country has a weak and diminishing share in the overall global investment stream remains a primary cause for low foreign investment in Pakistan. Fiscal fluctuations and quasi-fixed exchange-rate regimes have caused substantial economic disruption (Waheed & Ghumman, 2019).

However, empirical studies on economic growth and related factors are carried out far earlier aggressively; attention is given later to the infrastructure's influence on economic growth. The survey related to these challenges, however, rapidly becomes a different category. Instinctively, infrastructure is essential for economic development; a lot of effort is dedicated to this dilemma, although few have sought to establish its theoretical context. Since the 1980s, the relationship between infrastructure and economic growth was being studied extensively. After multiple reports and contextual-studies, the scene appears unclear. This is partially attributed to the apparent complexity of the studies undertaken thus far: infrastructure and development were measured in many ways; they focused on various phases and geographic regions and used differentiated econometric methods. However, such apparent inconsistencies do not reflect the heterogeneity of all empirical results. Previous research has shown very contradictory interpretations. As a result, some observers conclude that every infrastructure project is intrinsically different and that it becomes difficult to forecast the overall growth effect.

Many have already argued that pivot study results in macro-econometric infrastructure and development, but their reliability in decision-making is relatively low, not only because they require evidence. The term "infrastructure" derives from the Latin terms "infra" under, and "struktura" means a structured mechanism (that may also indicate under-structure either background). In the early 20th century, the term 'infrastructure' described the framework of structures that supported the armed forces movement beyond the front-line of battle (substances, weapons depots, military bases, polygons, units that demolished barriers and constructed bridges as the leading army moved). This terminology became popular during the 1940s in Western economics and subsequently on in much other literature and suggested areas of the economy supporting agriculture and industry (Ragnar, 1961). Instituting colleges, hospitals, accessible housing, and other social infrastructures

encourages public involvement in providing essential government infrastructure. The provision of economic infrastructure structures (e.g., airports, seaports, telecommunications, transport, and power generation and transmission systems) also connects individuals and companies to economic infrastructure resources. The provision of social and economic infrastructure would serve as a significant catalyst for sustainable growth. The significant positive relationship between investing in high-quality public infrastructure and development across the economy is demonstrated by a broad range of analytical and empirical methods. Based on the advanced economies' sample, IMF projections in October 2014 will raise investment output by 1 % of GDP by about 0.4% in the same year and by 1.5% in the coming four years (Queyranne et al., 2019). There are two dimensions of infrastructure comprise of "capitalness" and "publicness" according to (Fourie, 2006).

Therefore, it refers to assets that have an important but not strictly social value. It categorized the valuation degree infrastructure intensity and social significance. Therefore, infrastructure can include capital-intensive facilities, not of public interest. Even so, most of the infrastructure is being used by the public voluntarily. Economists refer to physical frameworks or infrastructure capital. Academic evidence analyses the role of infrastructure through physical infrastructure capital services. For all household and sustainable development levels, infrastructure resources such as electricity, transportation, telecommunications, water supply, sanitation, and waste disposal are essential. It is also recognize that infrastructure is a long-term, partially attached, capital-intensive assets with such a long lifespan (Prud'homme, 2005) and (Baldwin & Dixon, 2008). The investment return time might be somewhat consistent with a "market collapse" (a situation under which the economic climate crashes and economic efficiency is not achieved).

An awareness of the impact of government investment on growth is necessary for at least three dimensions. First, strict budgets have been proposed for decreasing public investment instead of current expenditure, as it is easier to eliminate the former ones for political and other concerns (Roy et al., 2006). Since the 1990s, the search has led to a remedy of the public investment tendencies, especially in infrastructure, and 'fiscal zones' to fund such spending (Heller, 2005). Belief inefficient public investment underlies this presumption. Second, it was stated in a very similar way that foreign borrowing constraints prevented governments from making significant investments with major "infrastructure gaps." While debt-funded government spending commitments to growth and exportation are often of considerable significance in foreign borrowing constraints since a country's borrowing capacity depends mainly on its macroeconomic policy, tax revenues, and the efficacy of its public finance, and debt management. Finally, as noted by the recent financial crisis, fiscal policy plays a counter-cyclical part in strengthening balanced growth and development. In several countries, fiscal stimulus initiatives have produced a significant portion of public investment spending, intended to be safer and more effective for continued development.

Economic growth has increased in South Asia over the last decade. Meanwhile, it has also built its infrastructure. Approximately one-fourth of the global population lives in South Asia, where too many people already live below the poverty line. Even so, income inequality in South Asia has increased significantly since the 1990s. Pakistan is a crucial country in the South Asian region, which is serving abundant problems. However, our analysis is intended to address the question: What effect does the infrastructure stock have on Pakistan's economic growth?

The current study is intended to evaluate infrastructure capital's function in economic growth in various institutional efficiency levels. In that sense, structural performance may be treated as a soft component of influencing growth trends, while infrastructural capital is perceived as a physical core. Therefore, the study's initial contribution is to reform through a new database that includes numerous alternative indicators such as general government investment, general government capital stock, private investment, and private capital stock for both dimensions, the collective impact of capital infrastructure organizational performance. In the era 1960–2017, we use a balanced data-set of the Pakistan economy.

## Literature Review

Gross fixed capital investments and capital transfer is actively engaged in government investment. It mostly concerns road infrastructure and infrastructure, including buildings for offices, houses, hospitals, and schools. Transfers of capital are government-paying investment grants and other transfers of capital. Total investment contributes to a holistic economy's investment expenditure, comprising government, financial companies, businesses, and nonprofit organizations (OECD, 2011). Public capital is the collective asset grouping of government resources used as a catalyst for economic growth (Aschauer, 1990). Such assets include a vast array of services, including roads, airports, bridges, trains, and transport systems; local and regional elements, including public education, public hospitals, police, and fire safety, jail and court of justice; and critical components, including water and sanitation, gas and power supplies and mobile telecommunications (Tatam, 1993). The government's initial investments and expenditures, resources, and infrastructure terms are most often defined as a physical stock of public capital. One of the most traditional macroeconomic research initiatives is the implications of available capital investment on sustainable economic growth. While numerous researchers explore this feasibility, it has also been observed that the relationship between infrastructure investment and economic growth was already statistically positive (Aschauer, 1990).

The economist David Alan Aschauer from the Federal Reserve said that an increase of 1% in public capital stock leads to an increase of 0.4% in the overall factor productivity (Haan et al., 2007). Review of the real GDP growth rates of the OECD and non-OECD economies, with explanatory variable government capital from 1960 to 2000 (not using public investment), rises in government capital stocks were related to improvements in growth (Arslanalp et al., 2010). Consequently, this connection is focused on the initial levels of government capital and income in the country. In the short term, the OECD countries have a stronger positive relationship, while non-OECD countries have a stronger positive relationship in the longer term. To endowment high-prospect investment in public capital, developing countries can advantage even from non-concessional public debt (Arslanalp et al., 2010). Private investment, macro-economically speaking, is a purchase from a financial facility to produce income, accumulate value, or generate and appreciate revenue. A property is a capital asset that is not quickly sold and usually acquired by an investor for profit – for instance, land, buildings, equipment, and machinery are capital assets.

Private capital is money provided as debt or capital investment by an external source such as a bank, a governmental entity, or stock sales on an exchange. Nevertheless, in a cluster of 30 countries in the Latin American Caribbean, the relationship between government capital stock, private capital stock, and economic progress was attributed from 1970 through 2014 (Santiago et al., 2020). Researchers estimate that both public and private capital stock positively impact our reporting countries' long-term economic development. However, the findings also show that short-term private capital continues to dominate public capital, which is one reason why government capital stocks are harming growth.

The study focused on Pakistan's overall and sectorial-level link between infrastructure investment and economic growth from 1972 to 2015. The study's main finding is that both government and private infrastructure investments have a positive but distinct economic development effect (Javid, 2019). This means that the marginal efficiency of private and public investment in all economic sectors varies. In most cases, public infrastructure investments have more impact than private infrastructure investments on economic growth. The research examines two significant consequences: (1) the policymakers can quantify the effect of policies targeted at the sector by using various elasticity estimates and, (2) the government intends to establish a political culture that can systemically encourage private investment. The framework of the private sector in infrastructure provision will lead to a difficult fiscal situation.

However, there is mixed empirical evidence of the impacts of public investment on growth. Preliminary findings have not documented clear findings regarding public investment growth factors (IMF, 2005b, 2004). There have also been claims that public investment is not successful. Some even concluded that the total factor productivity is required to understand growth variations instead of capital accumulation (Easterly et al., 2001). At around the same time, more the study concluded that there were significant growth outcomes for general public investment and infrastructure, education, and health expenses in particular (World Bank, 2007). The (Commission on Growth and Development, 2008) has sought to provide a much broader view of how massive public investment - 7% or more of GDP in fast-growing countries is possible. Other authors comprise Perotti & Roberto (2005) and Zand & Mark (2008) also claim that multipliers of fiscal expenses are significantly greater than multipliers of public expenditure or tax reductions.

According to Mohmand et al. (2017), there seems to be no systematic analysis of the contributions to economic growth in the existing literature of infrastructure investment. Current studies are associated with particular aspects of transport infrastructure. A limited number of physical infrastructure measurement metrics have been included in many other analyses, e.g., electricity use, paved roads, telecommunications networks, rail coverage, air transport, etc., especially in transport, energy and ICT sectors, while other infrastructure aspects were neglected and policy concerns have not been specific (Sahoo & Dash, 2009, 2012). In addition, the infrastructure component is primarily driven by quality of road, rail infrastructure, airport infrastructure, supply of electricity and institutional growth which is greater than the recorded national competition (Palei, 2015). The principal structural trap that restricts national economic growth has been revealed. These findings help us understand critical factors that affect economic growth, identify what infrastructure factors allow income levels to increase, and provide a valuable way for policymakers and managers to introduce better economic initiatives and structural reforms. Researchers examine the mutual effects of infrastructure capital and institutional efficiency on economic growth in a huge panel of data from 99 countries over 1980–2015. The effects of the relationship between capital and institutional quality suggest that economic growth has a positive and significant impression. These results are stable in numerous alternative strategies and institutional quality controls. Consequently, observations indicate that it is essential to enhance institutional efficiency to maximize infrastructure capital returns (Zergawu et al., 2020).

To accurate imperfections in the previous study, the recent analysis considers a more robust infrastructure framework consisting of 30 indicators for transport, electricity, ICT, and finance infrastructure. The method also uses the recently developed PMG (Pooled Mean Group) method, which could provide a detailed overview of the expansion hypothesis powered by infrastructure. The phenomenon of infrastructure-led growth is, however, tested by scholars using infrastructure sub-indications. The PMG projections are higher than the Fixed Effect (FE) results because they are strongly endogenous (Menegaki, 2019). South Asia is one of the fastest-growing regions worldwide owing to growth in recent years. In South Asian countries, policy reforms have given economic growth an impetus. In India, Nepal, Sri Lanka, and Bangladesh throughout the 1990s, the structural reforms brought economic growth. But Pakistan does not achieve the desired growth goals because of political complexities, socio-economic turmoil, and political unrest (Rehman et al., 2020).

Infrastructure has been demonstrated in various ways to impact a country's economic output. The multi-factor efficiency and penetration of income sustained development and economic growth in any economy (Calderon & Servén, 2008; Esfahani & Ramirez, 2003; Mas et al., 1996; Paul, 2003; Pereira & Andraz, 2013). Economic infrastructure contributes to economic potential and prosperity.

## Research Methodology

To analyze the influence of infrastructure capital on Pakistan's economic growth, we comprehensively comprise government general public investment, government general capital stock, private investment, and private capital

stock. The data collected from the International Monetary Fund (IMF) Fiscal Affairs Department over the period 1960-2017. In the neoclassical growth model, empirical studies use the mainstream function of Cobb-Douglas output as a source of input. Input infrastructure promotes labor and resources in the manufacturing process. We use augmented Cobb-Douglas production features for this purpose. Cobb-Douglas has two proposed factors, comprise labor and capital, used in production and growth purposes. Accumulation infrastructure in the Cobb-Douglas production feature will boost all economic activities. Performance and productivity can be increased by having adequate public infrastructure. Therefore, with adequate infrastructure, productivity, or efficiency increases. The above function has different interpretations and perspectives. From the neoclassical growth model's perspective, as Solow (1956) in his model claimed, there is a constant return to scale. He concludes that infrastructure shocks demonstrate exogenous and short-run economic growth shocks. Long-term influence, however, is only due to technology. Infrastructure investment has a short-term impact on aggregated demand and a long-term impact on the aggregate supply of accumulated capital, while Infrastructure investment is like all investments. Standardized aggregate growth can be described as concentrating on the long-term impact;

$$Y = f(A, L, K) \dots\dots\dots(i)$$

Y represents aggregate output, L and K representing labor and capital, respectively, and A showing total factor productivity. When the infrastructure is deliberated as a distinctive production input in a Cobb-Douglas aggregate production meaning and GI represents government investment, GCS as government capital stock, PI as private investment, and PCS as the private capital stock, we get:

$$Y = A (GI)^{\emptyset} (GCS)^{\varphi} (PI)^{\psi} (PCS)^{\pi} \dots\dots\dots(ii)$$

Where Y representing the country growth (GDP),  $\emptyset$ ,  $\varphi$ ,  $\psi$ , and  $\pi$  representing the efficiencies of government investment, government capital stock, private investment, and private capital stock correspondingly. By taking the natural log of the equation, we get;

$$\ln Y = a + \emptyset \ln (GI) + \varphi \ln (GCS) + \psi \ln (PI) + \pi \ln (PCS) + \varepsilon \dots\dots\dots(iii)$$

Where ' $\varepsilon$ ' is error-term.

## Estimations and Results Discussions

The unit root test is used to evaluate time-series hypotheses in a time series integrative of order one, as mentioned by (Phillips & Perron, 1988). It was established on the null hypothesis of the Dickey-Fuller test  $\rho = 1$  in  $\Delta y_t = (\rho - 1)y_{t-1} + \mu_t$  where  $\Delta$  signifies the 1<sup>st</sup> difference operative.

*Table 1 - Unit-root Results by Phillips-Perron Test*

| Variable                           | I(0)   | I(1)   |
|------------------------------------|--------|--------|
| <b>Govt. Capital Stock</b>         | 0.0196 | -      |
| <b>Govt. Investment</b>            | 0.5002 | 0.0000 |
| <b>Private Capital Stock</b>       | 0.0115 | -      |
| <b>Private Investment</b>          | 0.2850 | 0.0000 |
| <b>Real Gross Domestic Product</b> | 0.0000 | -      |

An econometric technique developed by (Pesaran et al., 2001) for evaluating long-term relationships between variables is ARDL bound testing technique. This approach has many benefits over conventional research for cointegration, a relatively new method. First of all, I(0) or I(1) is used in the sequence. Second, a linear transition will lead to the unrestricted error correction model (UECM) from the ARDL boundary test. This model has



short- and long-term consequences. Third, observational findings suggest the method is superior, producing reliable results for small samples. The sequence of ARDL measures is continuing to investigate: (a) stationary, (b) cointegration/test bound test, (c) error-correction model and bound test, and last but not least (c) long-run relationship, and (d) diagnostic tests comprise normality, autocorrelation, heteroskedasticity, CUSUM and CUSUM square test. There are other ways to continue with the statistical inference except for the first two stages, but this is achieved under other analytical frameworks.

*Table 2 - Lag-length Criteria and Johanson Cointegration Conclusions*

| Lag | AIC       | SC        |
|-----|-----------|-----------|
| 0   | -19.52120 | -19.33703 |
| 1   | -41.60698 | -40.50199 |
| 2   | -43.26320 | -41.23739 |
| 3   | -43.30134 | -40.35470 |
| 4   | -43.50507 | -39.63760 |

#### Johansen Cointegration Test Results

Three Cointegration equations are demonstrated in the Trace test.

The Max-eigenvalue analysis of three cointegration equations.

Table 2 describing the results of lag length criteria through AIC and SC methods. SC method leads to lag-length as 2 while AIC exposing 4 as lag length criteria. In cooperation, 'Trace' and 'Max-eigenvalue' systems for the Johansen cointegration test revealing three vital cointegration equations at a 5% level of significance.

*Table 3 - ECM and Bound Test*

| ECM Regression Results |             |                |             |
|------------------------|-------------|----------------|-------------|
| Variable               | Coefficient | t-statistics   | Prob.       |
| CointEq(-1)            | -0.131776   | -19.49076      | 0.0000      |
| F-Bound Test           |             |                |             |
| Test Statistics        | Value       | Level of Sign. | I(0) / I(1) |
| F-statistics           | 57.55903    | 5%             | 2.56/3.49   |

Negative but significant coefficient value (-0.131776) of CointEq(-1) in Table 3 leading that the economy of Pakistan moving toward the equilibrium position. In contrast, the F-statistic value 57.55903 more than the upper and lower limits at 5% level of significance snapshot that very strong cointegration exists among the variables.

*Table 4 - ARDL Long-run and Short-run*

| ARDL Short-run and Long-run Results |              |              |        |
|-------------------------------------|--------------|--------------|--------|
| Variable                            | Co-efficient | t-statistics | Prob.  |
| Govt. Capital Stock                 | 0.081946     | 1.970972     | 0.0543 |
| Govt. Investment                    | 0.010033     | 2.472913     | 0.0168 |
| Private capital Stock               | 0.133773     | 2.824829     | 0.0068 |
| Private investment                  | -0.053149    | -2.284921    | 0.0266 |
| ARDL Short-run and Long-run Results |              |              |        |
| Variable                            | Co-efficient | t-statistics | Prob.  |
| Govt. Capital Stock                 | 0.621853     | 2.218332     | 0.0311 |
| Govt. Investment                    | 0.076137     | 2.492970     | 0.0160 |
| Private capital Stock               | 1.015154     | 4.651551     | 0.0000 |
| Private investment                  | -0.403326    | -1.727762    | 0.0902 |



According to table 4, under the short-run period, government investments and private capital stocks showing a positive and significant while private investment revealed a negative but significant relationship with the RGDP of Pakistan. The government capital stock has a positive but insignificant relationship with RGDP in Pakistan over 1960-2017. Under the long-run period, government capital stock, government investment, and private capital stock revealed a positive and significant impact on the RGDP of Pakistan. In contrast, private investment revealed a negative and insignificant relationship with the RGDP of Pakistan. The estimated equation of our model can be written as;

$$\text{RGDP} = 0.5788 + 0.076(\text{GI}) + 0.6218(\text{GCS}) - 0.4033(\text{PI}) + 1.0151(\text{PCS}) + \text{Error term}$$

Table 5 - Serial Correlation LM and Heteroscedasticity Results

| Serial Correlation LM Results – Breusch Goldfrey Method |              |
|---|--------------|
| Obs-R <sup>2</sup>                                      | Prob. Chi-sq |
| 6.766212  | 0.1488       |
| Heteroscedasticity Test – Harvey Method                 |              |
| Obs-R <sup>2</sup>                                      | Prob. Chi-sq |
| 3.8429  | 0.6979       |

The estimated Serial correlation LM value of probability (0.1488) is more than 5% leads that there is no serial correlation problem in our analysis. While the probability value (0.6979) is also more than 5% for Heteroscedasticity, revealing the absence of a hetero problem in our studied data.

Diagram 'A' showing the graph of a histogram in which probability value 0.8311 is more than a 5% level of significance leads to fulfilling the condition of normality. Hence, our data is usually distributed.

Diagram 'B' showing the model fitness. If the estimated line (blue line) remains inside the upper and lower limits (red line), direct and verify that the estimated model is fit and robust.

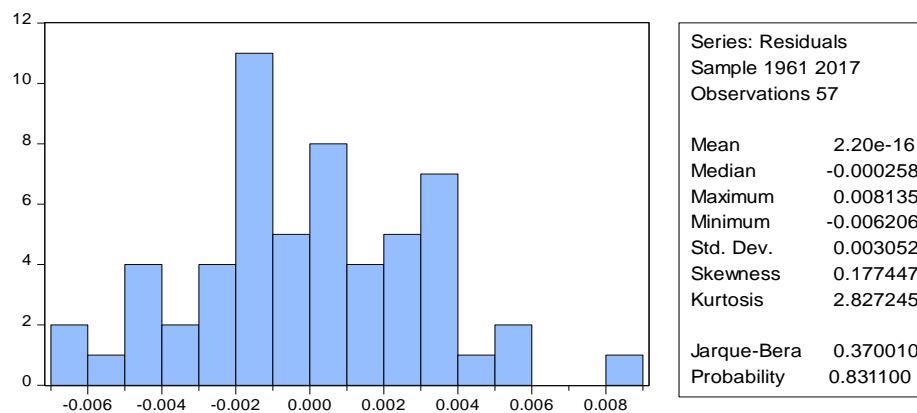


Figure 1 - Diagram –A (Normality test)

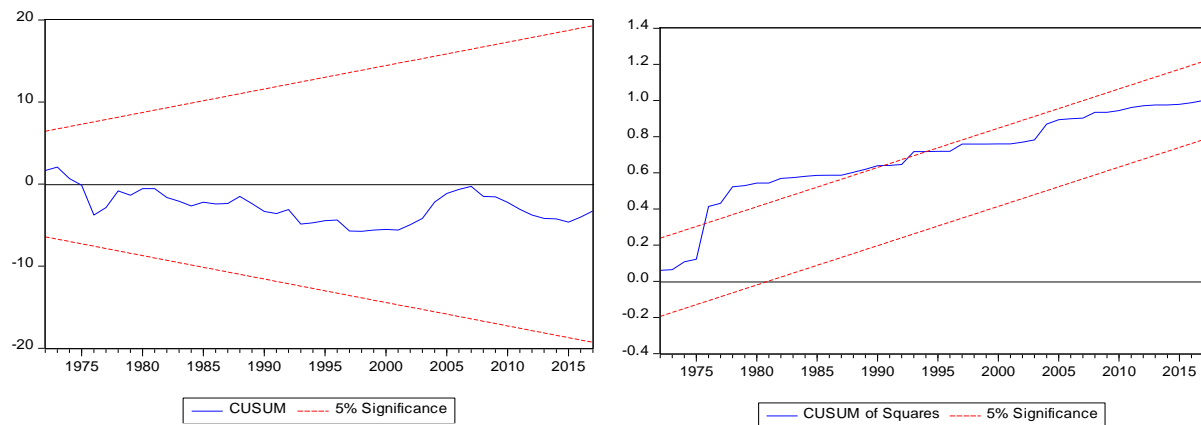


Figure 2 - Diagram –B (CUSUM and CUSUM Square Tests)

This research aimed to analyze empirical relationships for Pakistan's economy from 1960 to 2017 between government investment, government capital stocks, private investments, private capital stocks, and real gross domestic product. This study revealed the infrastructure capital relationship with RGDP of the economy, with a significant contribution to the new economic variables such as private and government capital stock and investment concerning Pakistan's real gross domestic product with a large sample size of 58 years' annual time-series data. The empirical consequences snapshot the two states comprise the short-run and long-run. Under the short-run period, government investments and private capital stocks showing a positive and significant while private investment revealed a negative but significant relationship with the RGDP of Pakistan. The government capital stock has a positive but insignificant relationship with RGDP in Pakistan over 1960-2017. On the other side, under the long-run period, government capital stock, government investment, and private capital stock revealed a positive and significant impact on the RGDP of Pakistan. In contrast, private investment revealed a negative and insignificant relationship with the RGDP of Pakistan. Hence, based on empirical consequences, when we increase by 1% in government capital stock, government investments, and private capital stock, Pakistan's real GDP will grow by 62.18%, 7.6%, and 101.51%, respectively.

## Conclusion

The infrastructure of any country plays a vital role in its economic growth. The fundamental constituent which may participate comprises government investment, government capital stock, private investment, and private capital stock. The government and private sector conjointly accelerate the speed of growth. To analyze the impact and connection composed for the Pakistan economy, we combined both (government and private) sector's capital stocks and investments as self-determining variables. The result of government capital investment on sustainable growth is one of the most conventional macroeconomic research initiatives. Although some researchers examine the impacts of infrastructure investment and economic development, there are positive and statistically relevant correlations. Though numerous scholars have expressed the significance of this, reports have suggested that statistically positive connections between infrastructure investment and economic growth (Aschauer, 1990). The Federal Reserve economist David Alan Aschauer stated that a 1% rise in the public capital stock would increase 0.4% in total factor productivity (Haan et al., 2007). Arslanalp et al. (2010) indicate that available capital stock increases are connected with growth increases. According to Santiago et al. (2020), the relationship between public capital stock, private capital stock, and economic growth has become evident. The estimates indicate that both public and private capital stock positively affect long-term economic growth in our country surveyed. Empirical evidence on public investment's impacts on development,

however, is mixed. Initial studies on public investment's influence on growth have not reported consistent findings (IMF, 2005b, 2004). Some also argued that public investment is not efficient. Around the same period, the World Bank (2007) concluded that public investment in general and infrastructure, education, and health expenditures, in particular, have substantial growth results. The Commission on Growth and Development (2008) contributed to a much broader interpretation by stating that high public investment, identified as 7 % of GDP or more, is a popular component in fast-growing countries.

Our empirical consequences revealed a positive and significant relationship between government investment, private capital stock, and RGDP. Simultaneously, private investment showed a significant and negative, and capital stock exposed a positive and insignificant connection with RGDP in Pakistan under a short-run period. In the long-run period, government capital stock, government investment, and private capital stock revealed a positive and significant impact on the RGDP of Pakistan. In contrast, private investment revealed a negative and insignificant relationship with the RGDP of Pakistan. Hence, based on empirical consequences, when we increase by 1% in government capital stock, government investments, and private capital stock, Pakistan's real GDP will grow by 62.18%, 7.6%, and 101.51%, respectively. It is suggested that Pakistan's government must need to increase its capital stock both for public and private sectors while investing at the government level to enhance the RGDP of Pakistan. Private investment also needs to stimulate to attain the targeted motives of the economic growth of Pakistan.

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# E-Banking Technology Characteristics and Performance of Micro and Small Enterprise in Kenya: A Moderated Mediation Model of Adoption and Innovative Behavior.

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**Purpose-** The study investigated the indirect effect of innovative behavior on the relationship between e-banking technology characteristics and micro and small enterprises (MSE) performance through e-banking technology adoption in Kenya.

**Design/methodology:** The study employed an explanatory research design and a multistage sampling technique to collect cross-sectional data using a self-administered questionnaire. The sample size of 455 MSEs was drawn from a target population of 5915 in Vihiga County, Kenya.

**Findings-** The study findings showed a complementary mediation of e-banking technology adoption on the relationship between e-banking technology characteristics and MSE performance. Additionally, innovative behavior moderated the association between e-banking technology adoption and MSE performance but did not moderate the relationship between e-banking technology characteristics and e-banking technology adoption. Further, innovative behavior moderates the indirect relationship between e-banking technology characteristics and MSE performance via e-banking technology adoption. This effect was much more substantial, with a higher level of innovative behavior.

**Practical Implications-** These findings underscored the need for policy reviews for government, county, and private sector on e-banking technology adoption and MSE performance in Kenya.

**Originality/value-** The study's findings bring vital knowledge concerning the indirect effect of e-banking technology adoption and innovative behavior on the study variables.

## Introduction

Worldwide, micro and small enterprises (MSEs) contribute to employment, regional development, and innovation. Haseeb, Lis, Haouas, and WW Mihardjo (2019) argue that MSEs are crucial to the economic stability of any country. MSEs are also considered the main economic drivers in both advanced and transitioning economies. They have a meaningful role to play in all economies in economic growth, poverty reduction, and job creation (Urbano, Aparicio, & Audretsch, 2019). In the UK, MSEs employ 67 percent of the workforce and account for more than 99 percent of businesses in most EU member states, 67 percent of jobs, and 59 percent of GDP (Haseeb et al., 2019). By 2013, the MSE sector had employed 6.4 million people, yielding up to 84% of total jobs, and contributed 18.4 percent of GDP (Liedholm & Mead, 2013). A national economic survey study by the Central Bank of Kenya reveals that MSEs account for 98 percent of all Kenyan businesses. Furthermore, the sector contributes 87 percent of all new jobs created and employs 77 percent of the workforce (Said & Kaplelach, 2019).

Mwaniki, Kinyanjui, and Opiyo (2017) suggest that most MSEs lag behind the rest of the world's economies when leveraging the enormous potential of e-banking strategies, thereby losing the benefits. E-banking cannot be implemented all at once but in a small series of moves and gradual progression. In keeping with their corporate strategy, organizations that implement e-banking strategies open up for new markets, networking, and customer service networks for streamlined operations and improved business results (Migdadi, Zaid, Al-Hujran, & Aloudat, 2016).

This research explored how MSE performance is affected by e-banking technology adoption decisions. The roll-out of e-banking systems is driven by bids to reduce cash management costs and increase payment system performance, thereby enabling the atmosphere for MSEs to be conducive. Singhraul and Garwal (2018) suggest that the growing use of internet banking has promoted a cashless world. According to Nel (2017), approximately 97 percent of transactions in the western world are made without physical cash, which has significantly reduced costs, corruption, and money laundering. Elechi and Rufus (2016) add that the electronic system aims to encourage electronic means of payment and not to discourage cash holdings. For many organizations, e-banking has changed business processes in several respects and is expected to continue (Anouze & Alamro, 2019). Among the benefits include exposure to a broader market, improved operating performance, increased partnering capacity with suppliers, enhanced customer support, reliability, and accessibility, among others (Kingshott, Sharma, & Chung, 2018).

Sepasgozar, Ramzani, Ebrahimzadeh, Sargolzae, and Sepasgozar (2020) argue that impediments to the application of e-banking include uneven infrastructure distribution, uneven distribution of technical access capabilities among different social groups, and large portions of the population being unable to access the Internet. Meanwhile, most clients who use or have the potential to use the internet lack the culture of innovation, for example, dislike of online transactions and preference for personal business contact. The research was thus needed to reveal the complementary factors bearing on the association between e-banking technology and performance of MSE, which may provide additional stimulus for investment in the area (Nashold Jr, 2020).

## Theoretical and Literature Review

### Theory of Constraints

Constraints Theory (TOC) is an organizational logic developed by Goldratt and Cox (1984). The theory holds that constraints limit the productivity of enterprises. The strength of any chain, process, procedure, or system depends on its weakest link. It is limitations that keep an association from achieving its goals. Consequently, Goldratt and Cox's findings supported this study since technology is known to improve MSE efficiency.

Therefore, TOC endeavors to set out the program performance constraints and effect the necessary adjustments to eliminate them. Subsequently, it constitutes a technique for distinguishing the most significant restricting element that prevents the attainment of desired ends and then improving that restriction systematically till it is eliminated, which was the main focus of this paper. Constraints may include people, processes, equipment, and technology, and they may be internal or external to the firm (Iqbal, Gan, & Nadeem, 2020)

According to Kingshott et al. (2018)), every framework has a limitation, no matter how well it performs, limiting its performance, which is its weakest link. Maximized income, money flow, and profits will, in turn, lead to a maximized rate of production. Constraints theory helps prioritize enhancement activities, as the most immediate issue is always present in the environment that requires urgent improvement.

### **Technology Acceptance Model (TAM)**

According to Davis (1989), Technology Adoption Model is driven by a focus on technological issues. This model illustrates people's behavioral goals and their application of IT (Durodolu, 2016). It is suggested that an individual's genuine behavior is dictated by his social expectation to use (his behavioral intent to use), which is influenced by the user's attitude towards and perceived usefulness of that technology. Nonetheless, both philosophy and perceived usefulness depend on how easy it is to use the technology. To adopt the TAM, end-users' requirements regarding usefulness and ease of use need to be understood (Al-Rahmi et al., 2019). Usefulness and ease of use impact the attitudes of users towards any service from this model.

Also, Yang, Pang, Liu, Yen, and Tarn (2015) suggest valuing consumer criteria based on perceived utility and ease of utilizing the system rather than any objective measure. The presumption in this analysis is that Davis's outcomes infer the application of e-banking technology characteristics. TAM offers empirical support in explaining the determinants of technology's appropriation as perceived ease of use and perceived utility. Its adoption is further clarified through a broad range of end-user technologies (Cespiva, 2018). Across numerous empirical TAM studies, what was referred to as perceived utility resulted consistently as a strong determinant of the intention to use IT (Wu & Chen, 2017). Understanding the factors of perceived usefulness and perceived ease of use constructs is essential since they are fundamental drivers of user-intention and how their influence changes over time with increasing experience using the system.

### **Entrepreneur Innovation Theory**

Schumpeter (1949) propounded the Entrepreneur Innovation Theory. As Schumpeter suggested, entrepreneurs help in an economy's cycle of improvement; they are the people who develop, build and present in a network. Schumpeter further adds that innovation occurs when an entrepreneur proposes a novel good or service, a new production method, opens a new market, discovers a fresh spring of raw materials, and brings a new company into the industry. He further stated that entrepreneurship is about combining resources differently, such as introducing new products, new production techniques, identifying new sources of foundational materials, and establishing a novel market standard that changes the economic system's balance.

Drucker (2014) held that the key to an enterprise's survival is innovation, resources, and entrepreneurial behavior. Entrepreneurship involved increasing customer value or fulfillment, creating new deals, and consolidating existing materials and resources in a novel and productive way. MSEs are marked by intense competition, while large firms operate in more favorable competitive settings and tend to implement innovations more often with little effort.

### **Mediating Role of E-banking Technology Adoption**

The adoption of e-banking technology describes the use of electronic networks like online banking, point of sale, cell phones, international cards, and ATMs (Arora & Kaur, 2018). Anouze and Alamro (2019) suggest that



a client's choice concerning the uptake of e-banking amenities rests fundamentally on the degree of awareness and information that the client has about it. All the details will be made accessible once consumers search and find information about a sold novel product. The customers prefer knowledge that is detailed in all respects of e-banking use. Hussein (2017) clarify that users should beware of certain things such as easy access, maximum information, time, etc., that will readily affect their e-banking decision.

Previous scholars document that a relationship exists between the adoption of e-banking technologies and the output of MSEs. Chuwa (2015) looked into aspects shaping online banking's utility by SMEs in Nyamagana District, Mwanza-Tanzania. The study revealed that demographic factors, including age, employment, education level, and occupation, were associated with internet banking uptake. Even psychological aspects, like a perceived relative advantage, perceived compatibility, perceived difficulty, perceived danger, and perceived cost were mentioned to influence e-banking adoption. However, social influences, which included peers, parents, and colleagues' views, were negligible in impacting the Tanzanian sense of internet banking.

Similarly, Masocha and Dzomonda (2018) report that the merits of mobile transactions and difficulties in conventional financial services affected the firm adoption of mobile money. Conclusively, the study demonstrated that the subsequent adoption of these services influenced SME results. Also, Chale and Mbamba (2015) identified mobile transaction services' bearing on Tanzanian SMEs' advancement. The outcomes indicated an improvement in sales volume, stock purchasing performance, decreased time for transaction purchases, purchases of goods and amenities, improved spending habits, and money transfer to business growth connected to a market niche, income, and profitability. Based on technology uptake hypotheses, Chale and Mbamba showed that SMEs' business growth was affected by mobile transactions in different ways for business activities, including sales transactions, stock purchasing performance, payment, goods, and amenities delivery, and savings, and money transfer. Nanjala and Oloko (2015) also found that, for their day-to-day transactions, most MSEs rely on e-banking technology compared to brick and mortar banking, as mobile money transactional costs are minimal, convenience and financial accessibility are simple, leading to increased enrolment in mobile money services resulting in increased sales and thus increasing MSE performance.

### **Moderating Role of Innovative Behavior**

The innovative trait is the manufacturing process variation aimed at reducing costs, wasting and scheduling jobs, or rising output capacity. Research has underlined that creative behavior works to boost enterprise output and improve business performance irrespective of size. Innovative behavior reflects the voluntary implementation of new approaches to undertakings within a function, group, or organization (Alegre & Pasamar, 2018). Creative action has also been proposed as an efficient method for dealing with organizational demands, such as a heavy workload (Eid & Agag, 2020). Omri (2015) looked at the association between innovative behavior and firm productivity to empirically determine whether managers' creative behavior directly or indirectly affects company performance through creative output. The study looked at a multi-industry group of Tunisian SMEs. Using the software package Smart PLS, version 2.0 in data analysis, it implemented the partial least squares (PLS) technique. The findings indicated that innovative behavior acts on output from innovation, thus affirming and meaningful enterprise output. Moreover, the direct influence on company productivity was positive but weakly significant. Such supportive partnerships appear to weaken in extremely competitive business conditions.

Olughor (2015) has found innovation to influence the performance of companies. Because of its competitiveness towards organizations, innovative behavior is essential (Mafabi, Munene, & Ahiauzu, 2015)). Mugo (2016) also studied innovation practices and their sway on MSE performance. The outcomes of which study showed that innovation strategy is a crucial driver of success among MSEs and should be applied strategically and structurally.

Additionally, Salim and Sulaiman (2011) Sarooghi, Libaers, and Burkemper (2015) observed that firm-wide growth contributes to innovation capacity, and, in turn, creativity is undoubtedly connected with company performance. Similarly, Karimi (2016) found that all three independent variables, namely cost, security, and regulatory environment, have a significant impact on SME productivity, with operating expenses having an adverse sway on SME performance, while business operations and marketing and sales efficiency have a helpful sway on it. As such, research has stressed the valuable place of innovative behavior in achieving meaningful change-oriented results, such as engagement in the transition process, preparation for change, and support for transition (Bani-Melhem, Zeffane, & Albaity, 2018)). Marvel, Wolfe, and Kuratko (2020) revealed the presence in a knowledge-based product innovation model of the moderating function of innovativeness behavior after examining human capital's connection with product innovation formed by firms.

## Study Objectives and Hypotheses

The core objectives of this work were: to examine whether e-banking technology adoption would mediate the relationship between e-banking technology characteristics and MSE performance; to look into the moderating impact of innovative behavior on the association between e-banking technology characteristics, e-banking technology adoption and MSE performance, and to examine the moderated mediation model of innovative behavior on the indirect relationship between e-banking technology characteristics and MSE performance through e-banking technology adoption. From the preceding, it was hypothesized that:

H<sub>1</sub>: E-banking technology adoption mediates the association between e-banking technology characteristics and MSE performance.

H<sub>2</sub>: Innovative behavior moderates the association between e-banking technology characteristics and MSE performance.

H<sub>3</sub>: Innovative behavior moderates the association between e-banking technology adoption and MSE performance.

H<sub>4</sub>: Innovative behavior moderates the indirect relationship between e-banking technology characteristics and MSE performance via e-banking technology adoption.

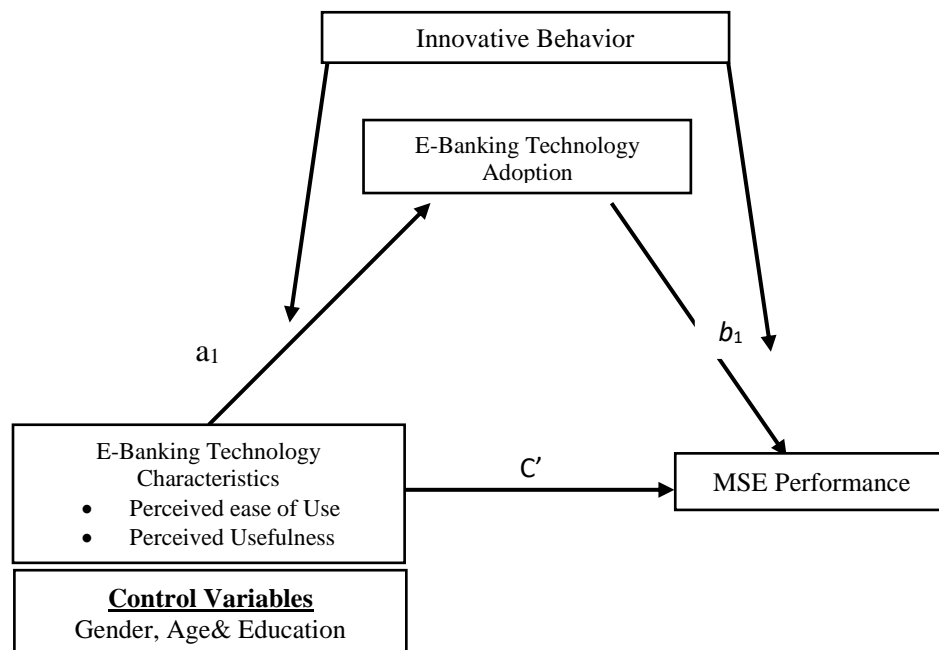


Figure 1: Conceptual model

Source: Hayes (2017, Model 58)

## Materials and Methods

The research was conducted in Vihiga County in western Kenya. It was quantitative in methodology, and it followed the concept of quantitative analysis. The study's target population consisted of MSEs based in Vihiga County, Kenya. As of December 2018, the list of registered MSEs in the county obtained from the County Administration under the Department of Licensing was indicated as 5,915, which constituted the target group for the study. The study population consisted of registered MSEs from sub-counties in Vihiga County, and all of the MSEs were the unit of analysis in Vihiga County. Table 1 shows the distribution of MSEs from Vihiga County per Sub-County.

*Table 1: Target Population*

| Sub-County   | Population  |
|--------------|-------------|
| Emuhaya      | 579         |
| Hamisi       | 1561        |
| Luanda       | 1176        |
| Sabatia      | 1234        |
| Vihiga       | 1365        |
| <b>Total</b> | <b>5915</b> |

*Source: County Government of Vihiga (2018)*

A sample size of 455 owners/managers was selected from the target population of 5915 MSEs. This was deemed sufficient for an explanatory research design, as indicated by Zikmund, Babin, Carr, and Griffin (2012) that a sample of between 400 and 500 is perfect for the quantitative method. The research used a multistage sampling technique involving clustering of the sub-counties. Therefore, the researcher used a proportionate stratified sampling technique to pick MSEs for research participation.

The study listed the owners or managers as the prominent participants in each of the analyzed units. The primary reason to choose the owners or managers was that IT-related decisions are always the preserve of the two. The researchers started by selecting MSEs to participate in Emuhaya Sub-County, where only 44 were chosen out of the 579 MSEs in total. Of the 53 MSEs in the manufacturing sector, four were selected to participate in the study proportionally to each industry. For the other three sectors, the procedure was repeated; Emuhaya service, traders, and agribusiness. To arrive at the sample size, the researchers used Yamane (1967) formula. The measure was founded on a 5 percent margin of error/precision level and a 95 percent confidentiality level.

For collecting quantitative data from MSE managers/owners, the researcher used standardized questionnaires. The researcher administered the questionnaire with the help of 2 qualified research assistants. The analysis involved one dependent variable, two independent variables, one mediator, one moderator, and control variables. The independent variables were perceived ease of use and perceived usefulness; the mediator was e-banking technology adoption; the moderator was innovative behaviour; while MSE performance was the dependent variable. All four variables were measured using a Likert scale of 5 points.

## Measures

### MSE Performance

MSE performance was a measurement of the extent of the organizational goal achievement. Profitability was utilized to measure MSE performance. The profitability component was measured using 7 items adopted and modified from Hughes and Morgan (2007) in the instrument. Indicators included "Income from e-banking has high margin hence contributing positively to annual enterprise profitability," "e-banking has low maintenance costs leading to increased profitability over their economic lifetime."

## E-banking Technology Characteristics

The dimensions of e-banking technology characteristics included perceived ease of use (PEoU) and perceived usefulness (PU). PEoU was measured using 11 items adopted from Wang and Zhang (2009), with modifications to suit the study, while PU was measured using 11 items in the questionnaire. Indicators for PEoU included “Using electronic banking requires little mental effort” and “Learning to operate electronic banking is easy for me.” In contrast, indicators for PU had “Using e-banking improve my efficiency in a bank transaction.”

## E-banking Technology Adoption

The e-banking system removes the utilization of cash to exchange goods and services by making electronic transfer payments possible. The study measured adoption using nine items adopted from (Chong 2013; Rawashdeh, 2015). Its constructs included the following: usage and regularity of use. It was measured using indicators such as “I use e-banking to pay my utility bills,” “I use e-banking to transfer money.”

## Innovative Behavior

Data on innovative behavior was generated using a series of 13 items. Creative action in MSEs involved developing new ideas (Martín-de Castro, Delgado-Verde, Navas-López, & Cruz-González, 2013). Its constructs included uniqueness and new ways of transactions adopted from Lumpkin and Dess (1996) and modified to fit the study. The measurement was conducted using indicators such as “I pioneer value and growth markets by innovation in products, services or business models” and “I always explore new technologies in the market.”

## Covariates

The study controlled for gender, age, and education level of the MSE owners/managers to eliminate their adverse influence on e-banking technology characteristics, e-banking technology adoption, innovative behavior, and MSE performance. Age was measured as ‘below 25 years’, ‘26-30 years’, ‘31-35 years’, ‘36-40 years’, and ‘over 40 years’. Gender was measured using ‘male’ and ‘female’ and education level was measured at ‘post-graduate,’ ‘bachelors,’ ‘diploma,’ ‘certificate,’ ‘secondary,’ ‘primary’ and ‘none.’

## Statistical Analysis

Data analysis involved identifying analytical tools, using different tests per study goal of each research. Each element was coded in the instrument and inserted into the SPSS program. Checking and cleaning data involved checking for inconsistencies and missing responses to guarantee that the instrument is accurate and complete. Descriptive statistics were utilized to analyses data for the classification and description of numerical results, which reinforced the necessity for more data analysis to continue (Somekh & Lewin, 2011). This justified the utilization of correlation and regression analysis for inferential statistics. It entailed analyzing data using frequencies, dispersing dependent and independent variants, major trend and variability measurements, and gaining meaning (M. Saunders, Lewis, & Thornhill, 2012; M. N. Saunders & Lewis, 2012). The coefficients' values for correlation range from a value of +1.00 to a value of -1.00, reflecting perfect relations.

MacKinnon (2012) four-step technique was implemented to analyze the mediation effect. Moreover, the analysis attempted to establish the moderating impact of innovative behavior on the link between the characteristics of e-banking technology and MSE performance, the e-banking technology adoption, and MSE performance. The study evaluated the moderated mediation model using Hayes (2017) process macro v3.2 (Model 58). The study used a bootstrapping approach to check the meaningfulness of the effects (Hayes, 2017) to achieve reliable standard errors for estimating parameters at 95 percent confidence intervals of 5000 data resamples non-zero  $\alpha = 0.05$  imply significant effects.



## Results

The study aimed to ascertain whether e-banking technology adoption would mediate the link between e-banking technology characteristics and MSE performance, to determine the moderating influence of innovative behavior on the connection between e-banking technology characteristics MSE performance, e-banking technology adoption, and MSE performance. Finally, the study purposed to know if the indirect relationship between e-banking technology characteristics and MSE performance through e-banking technology adoption was moderated by innovative behavior.

### Descriptive Statistics

Table 2 displays the means, standard deviations, dependability, and the impact of correlations for all research variables. The results show that e-banking technology characteristics and e-banking technology adoption had the highest mean of 4.21 with a standard deviation of .893 and .873. In contrast, MSE performance had the lowest mean of 3.65 and a standard deviation of 1.182. Additionally, reliability had a Cronbach's Alpha above .7 for all variables in the accepted range. Results of correlation shows that all variables were positively linked with MSE performance with e-banking technology having the highest relationship with  $r = .905$ ,  $p < .01$ , followed by e-banking technology adoption with  $r = .799$ ,  $p < .01$ , while innovative behavior had the lowest but positive association with  $r = .679$ ,  $p < .01$ .

*Table 2: E-banking Technology Characteristics, E-banking Technology Adoption, Innovative Behavior and Performance of MSEs*

| Variables n=402                            | M    | SD    | Reliability( $\alpha$ ) | Correlation1 | 2      | 3      |
|--|------|-------|-------------------------|--------------|--------|--------|
| MSE Performance (PF)                       | 3.65 | 1.182 | .903                    |              |        |        |
| E-banking technology characteristics (EBT) | 4.21 | .893  | .890                    | .905**       |        |        |
| E-banking technology adoption (ETA)        | 4.21 | .873  | .888                    | .789**       | .799** |        |
| Innovative behavior (IB)                   | 4.17 | .862  | .888                    | .692**       | .719** | .679** |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Testing for Mediation

The study hypothesized that e-banking technology adoption had a mediating effect on the link between e-banking technology characteristics and MSE performance. MacKinnon (2012) four-steps were followed to analyze the mediation effect.

The first step was to find out if e-banking technology characteristics have an association with e-banking technology adoption. Results in Table 3 reveal that gender and education were insignificant as they had  $p > .05$  while age was significant as it had  $p < .05$ . Additionally, e-banking technology characteristics indicate a  $\beta = .798$ ,  $p < .05$ , showing an affirmative and meaningful effect on e-banking technology adoption. Furthermore, the study findings demonstrate that all the variants account for 64.5% of the variance on e-banking technology adoption as shown by  $R^2 = .645$  with a significant  $F = 180.489$ ,  $p < .05$ . These findings fulfilled the first procedure's requirement, as proposed by MacKinnon (2012) (indicated that X must associate with M).

The second step of model 2 shows the outcomes of the 'b1 and c' side, which was meant to ascertain the impact of e-banking technology adoption on MSE performance and the direct effect of e-banking technology characteristics MSE performance. The results revealed that all the control variables were insignificant in this model, as indicated by  $p > .05$ . The findings also showed that e-banking technology adoption significantly affects MSE performance with  $\beta = .233$ ,  $p < .05$ , hence supporting equation  $Y = b_0 + C + b_1M + \epsilon$ . Furthermore, this model was utilized to test the direct effect of e-banking technology characteristics on MSE performance. The findings showed that e-banking technology characteristics had  $\beta = .359$ ,  $p < .05$ , implying a beneficial impact on MSE

performance. All the variants in this model explained 32.2% of the variance on MSE performance as shown by  $R^2=.322$  with  $F=37.566$ ,  $p<.05$

Since  $a_1$  and  $b_1$  were significant, the mediation process was possible by calculating the product of  $a_1 \times b_1$ . Results in Table 3 indicate that ( $a \times b = .798 \times .233 = .186$ ) with confidence interval,  $CI = .079, .288$ . Since confidence intervals from the bootstrap analysis are both positive and non-zero, therefore the hypothesis was supported. The product of  $a \times b \times c$  for  $H05c$  ( $.768 \times .233 \times .545 = .171$ ) was positive and hence signaled a complimentary mediation (Zhao, Lynch Jr, & Chen, 2010). Findings further in model 3 showed the results of total effect ( $\beta = .545$ ,  $p < .05$ ), which was equal to direct effect ( $\beta = .359$ ,  $p < .05$ ) + indirect effect ( $\beta = .186$ ,  $p < .05$ ), which indicated that e-banking technology characteristics had a significant relationship with MSE performance. However, when the mediator was introduced, then there was an increase in the association between variables.

Table 3: Mediating Effect of E-Banking Technology Adoption

|  | ETA ( $a_1$ ) = M1 |      | PF( $b_1$ ) = M2 |      | Total effect = M3 |      |
|--|--------------------|------|------------------|------|-------------------|------|
|  | $\beta$            | pv   | $\beta$          | pv   | B                 | pv   |
| Gender   | -.065              | .288 | -.069            | .413 | -.084             | .324 |
| Age  | -.049              | .025 | .020             | .518 | -.031             | .309 |
| Education  | -.037              | .083 | .007             | .803 | -.016             | .593 |
| E-banking tech. charact.   | .798               | .000 | .359             | .000 | .545              | .000 |
| E-banking tech. adopt  |                    |      | .233             | .000 |                   |      |
| $R^2$  | .645               |      | .322             |      | .303              |      |
| F  | 180.489***         |      | 37.566***        |      | 43.050***         |      |
| Mediation = $a_1 \times b_1 = .798 \times .233 = .186$ ; $CI = .079, .288$ |                    |      |                  |      |                   |      |
| Note: *** $p < .001$ , Dependent variable: MSE performance                 |                    |      |                  |      |                   |      |

Source: Researcher (2020)

## Testing for Moderation

The research also hypothesized that innovative behavior moderates e-banking technology characteristics, e-banking technology adoption, and MSE performance. The control variables were entered, including gender, age, and education levels of MSE owners or managers. Age as a control variable significantly affected e-banking technology adoption, while gender and education were insignificant. However, innovative behavior did not moderate the association between e-banking technology characteristics and e-banking technology adoption. It is evident from Table 4 that the regression coefficient of the interaction term of e-banking technology characteristics and innovative behavior was  $\beta = -.026$ ,  $p = .499$ . The beta weight indicates that the interaction of e-banking technology characteristics and creative behavior did not affect e-banking technology adoption.

Consequently, the influence was not significant. Because of the high p-value linked with the t-value, the hypothesis was not supported. Therefore, innovative behavior does not moderate the association between e-banking technology characteristics and e-banking technology adoption.

The research also hypothesized that innovative behavior moderates the link between e-banking technology adoption and MSE performance. Table 4 shows that the regression coefficient of the interaction term of creative behavior on the connection between e-banking technology adoption and MSE performance was  $\beta = .172$ ,  $p < .05$ . The regression coefficient suggests that innovative behavior's interaction exerts a positive and meaningful moderating impact on the link between e-banking technology adoption and MSE performance. Because of the low p-value linked with the t-value, the hypothesis was supported. Consequently, there is a

significant moderating impact of innovative behavior on the link between e-banking technology adoption and MSE performance. Table 4 below presents results on the moderating effect of creative action.

*Table 4: Moderating Effect of Innovative Behavior*

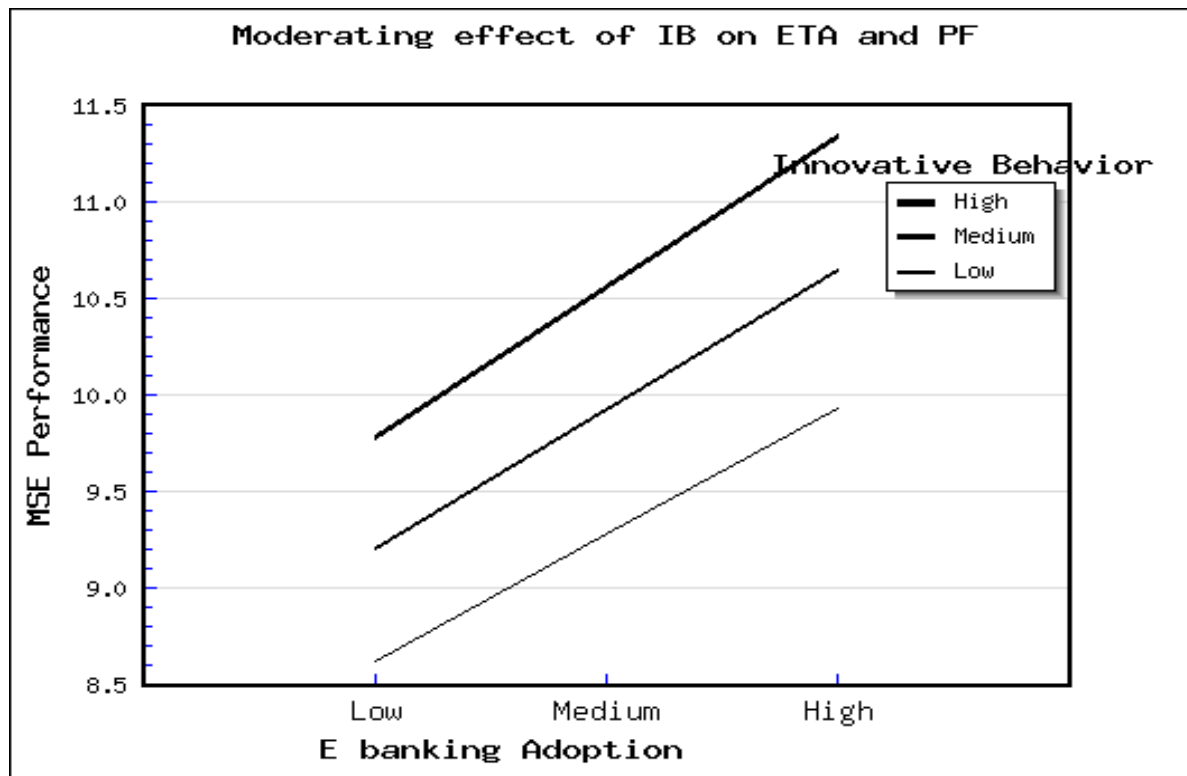
| Variables  | Model 1      | (ETA)     | Model 2      | (PF)      |
|--|--------------|-----------|--------------|-----------|
|  | <b>Coeff</b> | <b>pv</b> | <b>Coeff</b> | <b>pv</b> |
| Gender   | -.043        | .472      | -.022        | .796      |
| Age  | -.044        | .040*     | -.027        | .363      |
| Education  | -.030        | .144      | -.002        | .935      |
| E banking technology characteristics                       | .269***      | .000      | .431***      | .000      |
| E banking technology adoption                              | -            | -         | .751**       | .000      |
| Innovative Behavior  | .246***      | .000      | .352***      | .001      |
| E-banking technology characteristics × Innovative behavior | -.026        | .499      | -            | -         |
| E banking technology adoption × Innovative behavior        | -            | -         | .127*        | .024      |
| R <sup>2</sup>   | .666         |           | .276         |           |
| ΔR <sup>2</sup>  |              |           | .042         |           |
| F  | 131.486***   | .000      | 37.780***    | .000      |
| ΔF   |              |           | 24.182       |           |

Note: \*p< .05, \*\*p< .01, \*\*\*p< .001

Source: Research data (2019)

The moderated results were presented on a moderation graph to comprehend better the interaction between e-banking technology adoption, innovative behavior, and MSE performance. This was in accord with the suggestion by Cohen, Cohen, West, and Aiken (2003) that it is insufficient to conclude that there is interaction without probing the nature of that interaction at different levels of the moderator. Process macro analysis was conducted using model 58, where e-banking technology adoption and innovative behavior accounted for a significant amount of variance in MSE performance ( $R^2 = .666$ ,  $F [131.486] = p < .001$ ).

The interaction term between e-banking technology adoption, innovative behavior and control variables were added to the regression model, which accounted for a significant proportion of the variance in MSE performance,  $\Delta R^2 = .042$ ,  $\Delta F (24.182) = 24.18$ ,  $p = .001$ ,  $b = .127$ ,  $p < .01$ . An examination of the graph showed an enhancing effect that as e-banking technology adoption and innovative behavior increased, MSE performance increased. The analysis revealed that e-banking technology adoption has stronger significance on MSE performance at higher levels of innovative behavior than at the lower levels of the same. Thus, the figure's slopes indicate that, at high levels of innovative behavior, e-banking technology adoption was associated with stronger and significant innovative behavior compared to when it was with medium and low innovative behavior. These results were as depicted in Figure 2 below.



Legend: IB = innovative behavior, ETA=e banking technology adoption, PF=MSE performance

Figure 2: Innovative behavior has a moderating effect on the relationship between e-banking technology adoption and MSE performance

### ***Moderated Mediation of Innovative Behavior on the Relationship between E-Banking Technology Characteristics and MSE Performance via E-Banking Technology Adoption***

Hypothesis four presumed that innovative behavior moderates the relationship between e-banking technology characteristics and MSE performance via e-banking technology adoption. Table 5 reveals that the moderated mediation took place at both the mean level of the moderator (CI=.046, .218) and the upper level (CI=.075, .276) but was insignificant at the lower level of the moderator (CI=-.005, .177). However, the moderated mediation was much stronger at the moderator's higher level than at the mean level. Based on the results, the hypothesis was supported.

Table 5: Moderated mediation Results of Innovative Behavior on the Relationship between E-banking Technology Characteristics and MSE Performance via E-banking Technology Adoption

| Mean Levels of IB | Effect | SE   | LLCI  | ULCI |
|-------------------|--------|------|-------|------|
| -1 SD             | .087   | .046 | -.005 | .177 |
| 0 Mean            | .131   | .044 | .046  | .218 |
| +1SD              | .174   | .051 | .075  | .276 |

## **Discussion**

This study's findings showed that e-banking technology adoption positively affects the relationship between e-banking technology characteristics and MSE performance. Therefore, e-banking technology adoption affects e-banking technology characteristics, including perceived ease of use and perceived usefulness, which influences MSE performance. The literature on e-banking technology adoption indicates a direct relationship (Masocha & Dzomonda, 2018) between mobile money services and the implementation of Small and Medium Enterprises



(SMEs) in Zimbabwe. Small businesses adopt e-banking to communicate with their clients, customers, and initiate business transactions. Mobile devices, Internet, POS machine, ATM, and other e-gadgets serve as a medium through which enterprise carry out their dealings with customers and hence influence the performance of MSEs. The role of e-banking services helps in the profitability of small and medium enterprises.

MSEs use e-banking services for business purposes such as sales transactions, efficiency in purchasing stock, receiving payment, payment of goods and services, savings, and money transfer. The enterprises' performance is enhanced as there is an increase in sales necessitated by enterprises adopting e-banking services. This view is supported by InterMedia (2013) in an investigation of the uptake, use, and market potential of mobile money services in Tanzania. Besides personal use, most mobile money users use it to purchase inventory and receive payments for goods and services. Safety and security concerns in an environment characterized by relatively high criminal activities encourage e-banking system adoption (Igudia, 2017). Ease of use, convenience, monitoring, and speed of doing business, are found to be the reason for e-payment systems. Adopting e-transaction services is influenced by the e-banking system's benefits and the challenges in traditional financial services. The subsequent adoption of mobile money services affects the MSE performance. E-banking has reduced costs, such as customers being able to transact even if they lack physical cash, traveling to banking institutions to transact, need for security while carrying vast amounts of money for business transactions.

In contrast, they have maintained competitiveness in the market. From the literature reviewed, e-banking technology adoption has been used as an outcome in most studies. Little is known about its mediating role between e-banking technology characteristics and MSE performance. Our findings, therefore, provide new insights into the literature.

The study further sought to determine the moderating effect of innovative behavior on the relationship between e-banking technology characteristics and e-banking technology adoption. Similarly, the researchers hypothesized that creative action moderates e-banking technology characteristics and e-banking technology adoption. The findings revealed that innovative behavior does not significantly moderate the relationship between e-banking technology characteristics and e-banking technology adoption. The explanation could be that many factors necessitate the adoption process for any technology to be adopted, as has been posited by Rogers (1995). Adoption is a decision of full use of an innovation as the best course of action available. On the other hand, rejection is a decision not to adopt an invention, which, in this case, might be that e-banking technology characteristics might not necessitate e-banking technology adoption. Therefore, this hypothesis was supported.

The study further sought to determine the moderating effect of innovative behavior on the relationship between e-banking technology adoption and MSE performance. The findings showed that the interaction was positive and statistically highly significant. This implied that creative action significantly moderated the relationship between e-banking technology adoption and MSE performance. This being an enhancing moderation meant that as innovative behavior is high, there is an increase in MSE performance. Therefore, the objective was attained, and the hypothesis was accepted.

Finally, the study findings confirmed that innovative behavior moderates the indirect link between e-banking technology characteristics and MSE performance via e-banking technology adoption. This moderation is insignificant at low levels of innovative behavior (coefficient = .087, CI = -.005, .177, 1 standard deviation below the mean), significantly weaker at the mean levels of innovative behavior (coefficient = .131, CI = .046, .218), and much stronger with high levels of innovative behavior (coefficient = .174, CI = .075, .276, one standard deviation above the mean). These findings shed light on how MSEs can adopt e-banking technology in their enterprises by utilizing innovative ideas to enhance their performance. The findings also provide new knowledge to existing literature.

## Conclusion

From the results, the study confirms that e-banking technology adoption mediates the relationship between e-banking technology characteristics and MSE performance. The moderating effect of innovative behavior on the relationship between e-banking technology characteristics and e-banking technology adoption is insignificant. Since the association is negative, an increase in innovative behavior leads to a decrease in e-banking technology characteristics and e-banking technology adoption. Therefore, innovative behavior manifests no moderation concerning e-banking technology characteristics and e-banking technology adoption. However, there is a moderating effect of innovative behavior on the relationship between e-banking technology adoption and MSE performance. This means that an increase in innovative behavior leads to a rise in e-banking technology adoption and MSE performance. Furthermore, innovative behavior's moderating role brings some new insights into the literature as it enhances the relationship between e-banking technology adoption and MSE performance. Lastly, innovative behavior moderates the indirect relationship between e-banking technology characteristics and MSE performance via e-banking technology adoption.

## Theoretical and Managerial Implications

Theoretically, this study confirms the theory and contributes to the existing literature. The study first confirms what has already been established by other scholars that e-banking technology characteristics, e-banking technology adoption, and innovative behavior significantly affect MSE performance. Additionally, the study adds some new knowledge that e-banking technology adoption mediates the relationship between e-banking technology characteristics and MSE performance. Secondly, the study reveals that innovative behavior is an influential moderating variable in enhancing e-banking technology adoption and MSE performance.

The finding of this study has managerial implications for MSEs globally. First, studies have indicated that e-banking technology's adoption gives a competitive advantage to an enterprise over competitors. Therefore, policymakers should build strong policies that support e-banking technology adoption after evaluating the benefits associated with this technology. Additionally, Policies should be put in place to ensure that both the service providers and regulators create a conducive environment for MSEs as they create a healthy attitude towards adopting e-banking technology.

## Recommendations

The above conclusions show that the government and policymakers should formulate regulatory requirements to make entrepreneurs switch from cash to e-banking technology. This will change the entrepreneurs' mindset to see technology adoption as a positive move towards enterprise performance. The study also recommends that service providers of e-banking technology should put measures to ensure that they safeguard, enhance, and introduce online financial support systems that are appropriate in the market to support MSE performance.

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# Exploring the Impact of Emotional and Spiritual Intelligence on Job Satisfaction and Turnover Intention: Evidence from Mobile Telecommunication Companies in Ghana

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**Purpose-** Several critical factors contribute to employees' satisfaction or an attempt to stay with an organization. This paper aimed to explore the impact of emotional and spiritual intelligence on job satisfaction and turnover intention among employees in the telecommunication companies in Ghana.

**Design/Methodology-** A cross-section research design approach was adopted. A questionnaire was used to gather data from employees in MTN, Vodafone, and Airtel-Tigo in the Kumasi Metropolis Ghana through a simple random sampling approach. Statistical Package for Social Sciences (version 26) was to process data into tables and figures to help us undertake the descriptive, correlation, and multiple regression analysis.

**Findings-** The study results indicate that emotional intelligence positively influences the job satisfaction and turnover intentions of employees. Spiritual Intelligence was found to influence job satisfaction positively but had a negative impact on the turnover intention of employees in mobile telecommunication companies.

**Practical Implications-** The findings highlight the relevance of emotional and spiritual intelligence in promoting job satisfaction and turnover intention relative to emotional intelligence specifically. Furthermore, it would aid organizations in the sector with a huge workforce and large customer base to critically assess issues relating to emotional and spiritual intelligence to enhance job satisfaction and minimize the intent to leave the organization.

## Introduction

Organizational success is dependent on various factors, which are mostly influenced by certain behaviors and attitudes from employees and management (Yun et al., 2015). Aside from policies and laid down procedures that contribute to the organization's efficiency, there are important personal attributes that emanate from the human resources employed, which also augment the organization's efforts (Al-edenat & Alhawamdeh, 2019). Two essential elements that contribute to every organization's growth are the emotional and spiritual intelligence demonstrated by employees (Jung & Yoon, 2012). According to Miao et al. (2018), emotional and spiritual intelligence have now become a subject for discussion by business managers, psychologists, researchers, and an element of concern in the field of organizational behavior. This is because working is deemed to have become more relational than individualistic and would require every employee to come on board to progress. Additionally, the diverse workforce in various organizations calls for collaboration, teamwork, a sense of belonging, and co-operation to obtain organizational outcomes such as reducing turnover and satisfaction. According to the study, this calls for some level of emotional and spiritual Intelligence (Pinna et al., 2020).

Sony & Mekoth (2016) explains emotional intelligence to be a part of social intelligence, which tend to be the tendency to monitor one's own and others emotions and feelings, make a choice out of deductions made from these emotions and use the information to straighten your actions, to think and how to react in situations. Jung & Yoon (2012) believes that the emotional quotient is as relevant as a personal attribute that contributes to an organization's growth. The study further states that successful organizations would need employees who can control, manage, and communicate their emotions and feelings without jeopardizing the organization's effort. Additionally, emotional intelligence is an essential component in every organization's working environment because it leads to several work outcomes such as job satisfaction, performance, and turnover intentions (Prati et al., 2003).

Rostami et al. (2014) indicated that spiritual intelligence is an important construct necessary for the growth and survival of an organization because it aids the development of essential outcomes at the workplace by employees. Spiritual Intelligence is said to have become an integral part of the management of an organization. Spirituality creates the beliefs and traditions of the organization. It is the knowledge of yourself as the spirit or soul and considering your highest spiritual virtues and attributes: happiness, pureness, harmony, and enjoyment. Spiritual Intelligence manifests inherent spiritual values through the individual's behavior, actions, and thoughts (Osman-Gani et al., 2017). Spiritually intelligent people understand and apply their beliefs, enjoy their work, faithful, and are conscious of their cultural background. They are more accountable, trustworthy, and efficient. The organization is safe in their hands. Spiritual Intelligence makes employees more committed to the organization, thereby limiting turnover and promoting satisfaction. Spiritual Intelligence can be improved through training (Watson et al., 2018).

Employees who are satisfied offer superior services to their organization. Once they become satisfied, they demonstrate it through other forms of behavior. Therefore, job satisfaction must be the priority of an organization to put its employees in a state where they enjoy being with the organization. Once satisfied, leaving the organization becomes a secondary issue, reducing labor turnover (Saridakis et al., 2020). Employee turnover is a frequent occurrence in an organization. It may be a resignation, firing, or death of a member of the company. The turnover of employees is optional or compulsory. An employee's intention to walk away from an organization based on considerations such as the desirable quality of the current job and the existence of other working alternatives is optional. On the other hand, compulsory termination or employee attrition is a decision of an employer to end a working partnership and not be regulated by the staff member feeling it (Lee, 2017; Robinson, 2006).

Yoon et al. (2001) indicate that spiritual and emotional intelligence will be satisfied with their work, translating into committing to the organization other than leaving. On this basis, this study sort to ascertain the impact of spiritual and emotional intelligence on job satisfaction and turnover intention among employees in selected Mobile Telecommunications Company in Ghana.

## **Research Gap.**

Emotional and spiritual intelligence are two critical elements that affect both employees and the organization simultaneously and have become a significant concern to employers. However, in the Ghanaian set-up, emotional and spiritual intelligence has been heard off, little research has been done on them, especially in spiritual intelligence. Tagoe & Quarshie (2016) looked at emotional intelligence among nurses in the capital of Ghana, Accra. Dartey-Baaha & Mekporb (2017) also looked at the issue of emotional intelligence concerning leadership style. Dordunu et al. (2020) researched spiritual intelligence and religiosity among accountants in the country. The current research on these two elements indicates the growing concern of emotional and spiritual intelligence in the country. This research would contribute to the knowledge of spiritual and emotional intelligence by determining how they affect employees' job satisfaction and their intention to leave an organization using some selected mobile telecommunication companies as a reference point.

## **Research Objectives**

1. To determine the impact of emotional intelligence on job satisfaction.
2. To determine the impact of emotional intelligence on turnover intention.
3. To determine the impact of spiritual intelligence on job satisfaction.
4. To determine the impact of spiritual intelligence on turnover intention.

## **Research Questions**

1. Is there any relationship that exists between emotional intelligence and job satisfaction?
2. Does emotional intelligence affect turnover intention?
3. Is there any relationship that exists between spiritual intelligence and job satisfaction?
4. Does spiritual intelligence affect turnover intention?

## **Literature Review**

### **Emotional Intelligence**

Emotional intelligence is an essential aspect of social intelligence and a person's capacity to comprehend and govern their thoughts and feelings. Moreover, they are also able to use that intelligence to navigate their actions. Emotional intelligence helps a person promote self-feelings, stay optimistic, and nourish relationships (Elfenbein & MacCann, 2017). In business situations, it is acknowledged that Emotional Intelligence makes it easier for management and employees to define and recognize emotions and integrate them to manage themselves and their relationships with others (Sony & Mekoth, 2016a).

Emotional intelligence, according to a study by Mayer et al. (2016), refers to individuals capacity to accurately perceive, evaluate and express their emotions; the tendency to generate emotions which facilitate how an individual thinks; the ability to understand emotions, and finally the tendency to regulate emotions and promote the growth in one's emotional intelligence. The study conceptualized emotional intelligence into four dimensions, which are stipulated in table 1 below:



*Table 1 - Dimensions of emotional Intelligence*

| Dimensions of EI                         | Description  |
|--|--|
| <b>Self-emotional appraisal (SEA)</b>    | This is where an individual assesses and express his or her own emotions. People also can understand and communicate their emotions naturally. People with higher emotional intelligence are likely to acknowledge and demonstrate their emotions very well before others.   |
| <b>Other's emotional appraisal (OEA)</b> | This is where a person can evaluate and give recognition to other emotions. In this instance, a person perceives and comes to appreciate people's emotions surrounding him or her. People with high EI are more sensitive and pay attention to others' feelings and emotions to the extent of reading their minds and actions. |
| <b>Regulation of emotion (ROE)</b>       | This is where a person regulates their emotions and feelings—people's ability to control their emotions, which facilitate the speedy recovery from psychological distress.   |
| <b>Use of emotion (UOE)</b>              | This is where people use their emotions to influence performance. This occurs when individuals use their emotions by directing them towards a constructive activity and improving personal performance.  |

Source: (Mayer et al., 2016).

Goleman (1998) also had a different perspective on EI and grouped EI into five components: self-awareness, self-regulation, motivation, empathy, and social skills. However, to have a more acceptable meaning to EI, Boyatzis et al. (2000) summed these components into four which are self-awareness, self-management, social awareness, and relationship management.

## Spiritual Intelligence

According to Hanefar et al. (2016), spiritual intelligence is the set of attributes that people use to relate, express, and personify spiritual resources, values, and character traits in ways that maximize their daily functioning and well-being. Spiritual Intelligence is also people's capacity to think and act wisely and compassionately while preserving inner and outer tranquility, regardless of the circumstances (Sharma, 2017). Spiritual Intelligence enhances the ability of individuals to appreciate others from a better perspective. Spiritual Intelligence enables an individual to discern both the 'true cause' of behavior without judgment and serve others' 'true needs' until they gain knowledge to satisfy their own demands (Ramachandaran et al., 2017). Spiritually intelligent people are said to have the capacity to solve challenges through the use of spiritual resources. They are very conscious, full of conviction, and relate to everyday occurrences with beautiful ideas (Emmons, 2000). The study categorized spiritual intelligence into seven dimensions, which are indicated in table 2

*Table 2 - Dimensions of spiritual Intelligence*

| Dimensions                     | Description  |
|--------------------------------|--|
| <b>Divinity</b>                | Means the emotion about greater power and resource of energy   |
| <b>Mindfulness</b>             | It means a physical process like eating some unique foods or involving in some practices like Yoga         |
| <b>Extrasensory perception</b> | The skill to know things that cannot be known by the regular use of the senses (the sixth sense of people) |
| <b>Community</b>               | Means contributing to social practices like charitable organizations                                       |
| <b>Intellectuality</b>         | Means tendency and dedication of people to read about spiritual and holy matters                           |
| <b>Trauma</b>                  | Means stresses caused by the death and illness of other people   |
| <b>Childhood spirituality</b>  | It means people childhood spiritual experiences, like reading holy books or going to church                |

Source: (Emmons, 2000).

Hunt (2016) also sees spiritual intelligence as competence through which persons recognize and resolve meaning and importance. It also characterizes the intelligence that people can position their actions and their lifestyles in a broader and richer context, which gives a sense.

## **Job Satisfaction**

Liu et al. (2016). Job satisfaction is a gratifying or favorable emotional response from assessing one's job or work experience. It is the employee's interpretation of how well things are offered that are deemed essential. Job satisfaction is among the most important and widely researched concepts in the field of organizational behavior. Employees with positive feelings regarding their job have a high level of job satisfaction, whereas individuals with ill feelings regarding their career have a low job satisfaction level (Biswas & Mazumder, 2017).

Job satisfaction is essentially an attribute of three parameters that are generally recognized. First, how the employee feels emotionally about the job and the level at which the job creates challenging activities, opportunities to learn, and employee empowerment. The nature of the work itself is the most critical factor influencing job satisfaction (Munir & Rahman, 2016). Second, job satisfaction is sometimes determined based on the relationship between the employee's overall productivity and the employee's preconceptions. The targets might be in the context of financial remuneration or gratitude from supervisors, or like progressing in the organization. The compensation package is the indispensable factor that mostly arises when you address job satisfaction (Allouzi et al., 2018). Lastly, the type of assistance that an employee gets from superior or fellow employees in their company and the degree to which supervisors and fellow employees are highly professional and socially supportive. Interconnectedness, responses, emotional support, and collaboration with colleagues outside the organizational premises are closely correlated to job satisfaction. Cooperative coworkers or team members are believed to be a significant source of job satisfaction. A successful working group or productive team makes the job more rewarding and fulfilling (El-Badawy & Magdy, 2015).

## **Turnover Intention**

Turnover intention is described as the consolidating factors which make an employee not content with his or her job, have the notion of quitting, have the impression of finding out other jobs, and a chance to pursue the same job in different organizations (Kerdngern & Thanitbenjasith, 2017). It is believed that turnover intentions mostly manifest in two ways. One is where an employee is thinking, pushing, and deciding to opt-out from an organization or quit from his or her job with a company for the same or another job in a different company. The latter is also when an organization decides to part ways with an employee by relieving them from a position or job they hold in an organization (Lee, 2017).

Bright (2018) indicates that turnover intention is an employee's or organization's act of physically separating from the immediate employer or employee and abdicating the job's obligations. The study further shows that workers' high turnover levels may affect the efficiency, consistency, reliability of business services, discourage remaining employees, and foster a sense of resentment among the customer base of a company. In general, turnover is correlated with the loss of valuable resources, mainly when seasoned workers leave. However, it must be noted that the decision to leave is underpinned by the contemplations of employees and the organizations. This has been understood as turnover intentions and according to Campbell et al. (2014). It's the cognitive process of thinking about abandoning one's job, contemplating leaving, or feeling the urge to go.

## **Emotional Intelligence, Job Satisfaction, and Turnover Intention**

The researcher's interest has been drawn to the chapter of emotional intelligence as evidence is indicated in Tagoe & Quarshie's (2017) research work, which shows that Emotional Intelligence is a crucial predictor of job satisfaction and other work-related output. In a research work by Trivellas et al. (2013), which investigates the

influence of emotional intelligence on job satisfaction and turnover intentions, it was found that EI has a significant impact on these two variables. The study also concluded a positive and significant relationship between emotional intelligence and job satisfaction, commitment and turnover intention. The research results supported the gender difference in relation to emotional intelligence, with females revealing higher scores on emotional intelligence than their male counterparts (Anari, 2012). Furthermore, Emdady & Bagheri (2013) also establish a positive relationship between emotional intelligence and job satisfaction regarding Sana Company workers in the Republic of Iran. Trivellas et al. (2014) examined the influence of emotional intelligence on job satisfaction, organizational commitment, and nurses' turnover intention. The hypothesized relationships were established with EI showing a strong and positive relationship with job satisfaction but showing a significant and negative relationship with turnover intention. However, the study concluded that nurses presented a higher degree of EI tend to be more satisfied with their work and had a lower intention to leave their jobs. Sy et al., (2006) study explored the correlation between workers' emotional intelligence, emotional intelligence of managers, job satisfaction of employees, and performance of 187 food service employees from nine different locations within the same restaurant franchise. The study found that the emotional intelligence of employees has been positively correlated with job satisfaction and performance.

Moreover, the emotional intelligence of managers had a more positive relationship with job satisfaction. Emotional intelligence is said to produce various work outcomes and behavior, including turnover intentions. The study believes EI is positively correlated to turnover intentions (Feyerabend et al., 2018). On these premises, the study put forward the following hypothesis:

H1 – Emotional Intelligence positively influences job satisfaction.

H3 – Emotional Intelligence positively influences turnover intention.

### **Spiritual Intelligence, Job Satisfaction, and Turnover Intention**

Nodehi & Nehardani (2013) examined the connection between job satisfaction and spiritual intelligence among 215 Mashhad high school teachers. They employed five items to assess job satisfaction (Coworkers' relationship, the job itself, salary, supervision, and promotional opportunity). Results reveal that spiritual intelligence affects job satisfaction significantly. Amin Mohamed et al. (2004) indicate that spiritually intelligent employees usually feel satisfied with their work and an individual's commitment to the organization and work when the spiritual element of the individual's personality is greater. The study also shows that a spiritually intelligent person has no intention to quit his or her organization. Again, it has been stated that spiritually intelligent workers are happier and deeply integrated and peaceful (George, 2006). According to the same study, these persons have a definite sense of identity, discern the true meaning of events and situations, and make work worthwhile. This implicitly assumes that a spiritually intelligent person better adapts and tolerates situations and attempts to impact any circumstance substantially. Therefore, the turnover to quit the organization will not be there for spiritually intelligent employees. Khorshidi & Ebadi, (2012) investigated the influence of spiritual intelligence on employee job satisfaction among workers in public universities in Tehran. The outcome showed that spiritual intelligence has a significant and positive impact on job satisfaction. The study proposes the following hypothesis:

H2 – Spiritual Intelligence positively influences job satisfaction.

H4 – Spiritual Intelligence positively influences turnover intention.

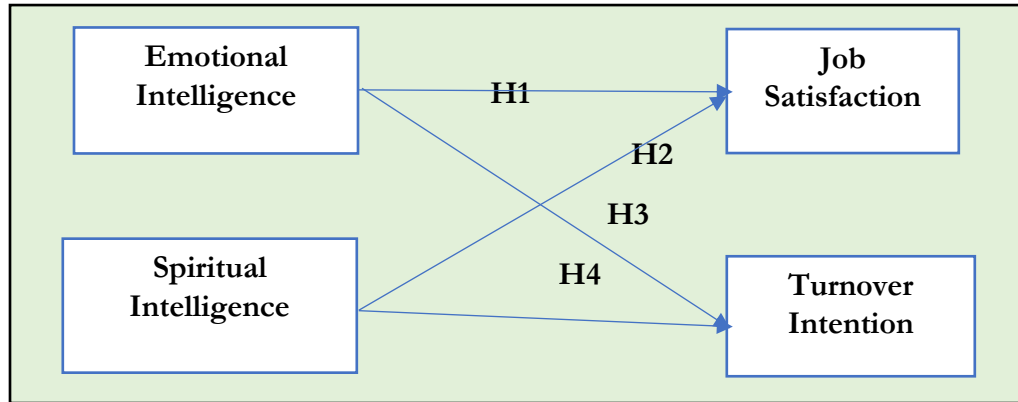


Figure 1 - Conceptual framework of the study.

## Research Methodology

### Research Design

The research design stipulates the ways and methods through which data can be obtained to undertake an analysis. It indicates the sources and the kind of information to be gathered. This study adopted the cross-sectional approach, which is frequently used by researchers in education and social sciences. A cross-sectional study aims to collect and analyze data from various groups of people whose interests vary but may have certain characteristics similar to educational background and socioeconomic status (Kothari, 2004). A cross-sectional survey was conducted to collate field data from respondents of the selected mobile telecommunication companies in Ghana. This study seeks to shed more light on the impact of emotional intelligence and spiritual intelligence on job satisfaction and turnover intention. The value or quality of the survey approach is its applicability to current human circumstances in real life. The researcher will use the survey approach because its findings explicitly relate to the everyday life of the average reader.

### Research Population, Sampling, and Sample Size

The research population refers to individuals or objects, which are the main focus of the study. This study's population is the employees of the selected mobile telecommunication companies in Ghana who work in their designated offices within the Kumasi Metropolis.

Sampling refers to the method used in selecting individuals/objects or a subset of the population of study to make statistical inferences from them and determine the features of the entire population. The research adopted the random sampling approach to collect information from MTN, Vodafone, and Airtel-Tigo employees. The study's total sample size is 118 employees with 43 from MTN, 38 from Vodafone, and 37 from Airtel-TIGO in Ghana who has worked in their respective companies for over one year.

Table 3 - Population, Sample Size, and Sampling techniques

| Type of Mobile Telecommunication Company | Unit of analysis (population of study) | Sample size | Sampling technique |
|--|--|-------------|--------------------|
| MTN GHANA                                | Employees                              | 43          | Random             |
| VODAFONE GHANA                           | Employees                              | 38          | Random             |
| AIRTEL-TIGO                              | Employees                              | 37          | Random             |

## Research Instrument and Data Collection.

The study adopted the survey approach where a questionnaire was used as a principal medium to solicit information from respondents from the chosen mobile telecommunication companies after defining the reason for carrying out this study. The questionnaire was divided into two sections, with the first aspect indicating information relating to the respondents' demographic features. The subsequent section called on respondents to the questions on emotional Intelligence, Spiritual Intelligence, job satisfaction, and turnover intention using the provided Likert scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree), and 5(strongly agree). One hundred forty-five questionnaires were sent out online to these employees, 55 to MTN employees, 45 to Vodafone employees, and 45 to Airtel-Tigo employees. One hundred eighteen of the questionnaires were filled and submitted, indicating a response of 81%, which was further adapted and used for the study's analysis.

## Operationalizing Variables.

Emotional intelligence was measured by 8items taken from Wong et al. (2002). Spiritual Intelligence was measure by 9items adopted from King (2008). Job satisfaction was measured using 6items adopted from Weiss et al. (1967), which is popularly documented as Minnesota Studies Questionnaire (MSQ). The turnover intention was measured by 5items obtained from Ahmed et al. (2014).

## Data analysis and Presentation.

The data gathered was analyzed using the Statistical Package of Social Sciences (SPSS 26). For the benefit of proper analysis and clarity, data was processed into mathematical tables and charts. All errors were identified, corrected, and coded to ensure proper processing of the data gathered. This enabled the study to also test for the reliability, validity, and accurateness of the data. The collected data were analyzed quantitatively. Correlation analysis was done to determine the correlations or relationships that exist between independent variables and dependent variables. Additionally, multiple regression analysis was initiated to define relationships among variables being studied.

### Model specification

The multiple linear regression models used for this research is indicated in mathematical terms as follows:

$$JS = \beta_0 + \beta_1 EI_1 + \beta_2 SI_2 + \mu_i \quad \text{Eq (1)}$$

$$TI = \beta_0 + \beta_1 EI_1 + \beta_2 SI_2 + \mu_i \quad \text{Eq (2)}$$

Where JS = Job Satisfaction (DV), TI= Turnover Intention (DV), EI = Emotional Intelligence (IV), and SI = Spiritual Intelligence (IV).

## Demographic characteristics of respondents.

The majority of the respondents were females, belonged to the 18-30years age bracket, had a bachelor's degree, are married, had been with their organization for 1-5years, and are Christians. The demographic characteristics of the 118 respondents are indicated in table 4 below.

*Table 4 - Demographic Characteristic of Respondents*

| Demographics |        | Frequency(n=118) | Percentage (%) |
|--------------|--------|------------------|----------------|
| Gender       | Male   | 57               | 48.3           |
|              | Female | 61               | 51.7           |
| Age          | 18-30  | 45               | 46.6           |
|              | 31-40  | 29               | 24.6           |
|              | 41-50  | 19               | 16.1           |
|              | 51-60  | 15               | 12.7           |





|                           |                     |    |      |
|---------------------------|---------------------|----|------|
| Educational qualification | WASSCE              | 17 | 14.4 |
|                           | HND                 | 29 | 24.6 |
|                           | Bachelor degree     | 52 | 44.1 |
|                           | Master degree       | 12 | 10.1 |
|                           | PhD                 | 8  | 6.8  |
| Marital Status            | Single              | 52 | 44.1 |
|                           | Married             | 61 | 51.7 |
|                           | Divorced            | 5  | 4.2  |
|                           | 1-5years            | 46 | 39.0 |
| Organizational tenure     | 6-10years           | 43 | 36.4 |
|                           | 11-15years          | 20 | 16.9 |
|                           | 16years and above   | 9  | 7.6  |
| Religious Affiliation     | Christianity        | 92 | 78.0 |
|                           | Islam               | 26 | 22.0 |
|                           | African traditional | -  | -    |
|                           | Others              | -  | -    |

## Descriptive Statistics

Table 5 below records the mean, standard deviations, and the number of observations. Spiritual intelligence records the highest mean of 4.8107 and the least standard deviation of 0.33296. Job satisfaction, turnover intention, and emotional intelligence record a mean of 3.7119, 4.4576, and 3.8432, respectively, and standard deviation of 0.47375, 0.38715, and 0.47737, respectively.

Table 5 - Mean and standard deviations of study variables

| Variables              | N   | Mean   | Std. Deviation |
|------------------------|-----|--------|----------------|
| Job Satisfaction       | 118 | 3.7119 | .47375         |
| Turnover Intention     | 118 | 4.4576 | .38175         |
| Emotional Intelligence | 118 | 3.8432 | .47737         |
| Spiritual Intelligence | 118 | 4.8107 | .33296         |
| Valid N (Listwise)     | 118 |        |                |

## Validity and Reliability

The Cronbach's Alpha coefficient is mostly used to ascertain the measurement model's reliability when most of the questions used were evaluated using the Likert scale. When the Cronbach Alpha score is more than 0.7 or higher, the model is deemed good, acceptable, and reliable. From table 6 below, the Cronbach alpha values reported are greater than 0.7. The study concludes that the measurement model is reliable.

Table 6 - Summary of Cronbach Alpha values

| Variables | Model 1 – Job Satisfaction |              | Model 2 – Turnover Intention. |              |
|-----------|----------------------------|--------------|-------------------------------|--------------|
|           | Cronbach Alpha             | No. of items | Cronbach Alpha                | No. of items |
| EI        | .823                       | 14           | .738                          | 13           |
| SI        | .734                       | 15           | .767                          | 14           |

- Predictors: (Constant), Emotional Intelligence, Spiritual Intelligence
- Dependent Variables: Job Satisfaction, Turnover Intention.

## Correlation Analysis.

The Pearson correlation analysis was conducted to ascertain the relationship between the independent variables and dependent variables. The significant level for all correlation coefficient was set at the 0.05 level (2-tailed). The strength of the relationship can be determined through a person correlation ( $r$ ). When  $r = 0$ , it means there is no correlation. When  $r = 1$ , then there is a perfect correlation, and when  $r = -1$ , then there is a negative correlation. The guidelines for the strength of the relationship matrix of correlation among variables is; ( $r=0.10$  to  $0.29$  or  $r=-0.10$  to  $-0.29$  means small correlation), ( $r=0.30$  to  $0.49$  or  $r= -0.30$  to  $-0.49$  means medium correlation) and ( $r= 0.5$  to  $1$  or  $r= -0.5$  to  $1$  means strong correlation) (Hair et al., 2010).

Table 7 below stipulates the correlation is significant, i.e., there is a strong correlation between emotional intelligence and job satisfaction, which reports  $r=0.774$ . In contrast, there is a small correlation between spiritual intelligence and job satisfaction, which reports  $r=0.133$ . This outcome supports the literature review's assertion that emotional intelligence and spiritual intelligence both correlate with job satisfaction. Tagoe & Quarshie (2017) agreed that emotional intelligence positively affects employees' job satisfaction. Emdady & Bagheri (2013) indicated that satisfied employees turned to demonstrate high emotional intelligence at the workplace. This is shown in the table below, and therefore, hypothesis 1 is accepted. Khorshidi & Ebadi (2012) alluded to the fact that spiritual intelligence positively affects job satisfaction. Employees who are satisfied turn to exhibit a high spiritual intelligence level (Nodehi & Nehardani, 2013). Therefore, hypothesis 3 is accepted.

*Table 7 - Correlational analysis between emotional intelligence, spiritual intelligence, and job satisfaction.*

|                            | Job Satisfaction |       | Emotional Intelligence | Spiritual Intelligence |
|----------------------------|------------------|-------|------------------------|------------------------|
| <b>Pearson Correlation</b> | JS               | 1.000 |                        |                        |
|                            | EI               | .774  | 1.000                  |                        |
|                            | SI               | .133  | -.140                  | 1.000                  |

Table 7 depicts a positive, significant, and strong correlation between emotional intelligence and turnover intention where  $r=0.605$ . However, there is a negative correlation between spiritual turnover and turnover intention. Based on the outcome, the study agrees to the assertion initially made in the literature review that emotional intelligence correlates with turnover intention but rejects any assertion of the same regarding spiritual intelligence and turnover intention. Panagiotis Trivellas et al. (2014) agree with the assertion that emotional intelligence has a positive effect on workplace turnover intention. Spiritual Intelligence is also said to have a negative impact on turnover intention, as shown in (Dordunu et al., 2020). This, therefore, implies hypothesis 3 is accepted, but hypothesis 4 is rejected.

*Table 8 - Correlational analysis between emotional intelligence, spiritual intelligence, and turnover intention.*

| Correlations               |    |                    |                        |                        |
|----------------------------|----|--------------------|------------------------|------------------------|
| <b>Pearson Correlation</b> |    | Turnover Intention | Emotional Intelligence | Spiritual Intelligence |
|                            | TI | 1.000              |                        |                        |
|                            | EI | .605               | 1.000                  |                        |
|                            | SI | -.038              | -.140                  | 1.000                  |

## Multiple Regression Analysis

The model correlation coefficient for the models,  $R$ , is recorded to be 0.832 in model 1 and 0.777 in model 2, higher than any zero-order value in the models. This also means that the models will improve when more variables are incorporated when analyzing the determinants of job satisfaction and turnover intention. The models indicate goodness fit as shown by the coefficient of determination ( $R^2$ ) with values of 0.693 and 0.604 in models 1 and 2, respectively. This means the independent variables, i.e., emotional intelligence and spiritual intelligence, explain 69% variations in job satisfaction in model 1 and explain 60% variations in turnover

intention in model 2. The remaining 31% and 40% of the dependent variables' variations are determined by other factors not considered in the study. The models are also significant, with p-values 0.000 and 0.000, respectively.

Table 9 - Model summary

| Model 1 – Job Satisfaction  |                |                     |            |      | Model 2 – Turnover Intention |                |                     |            |      |
|---|----------------|---------------------|------------|------|------------------------------|----------------|---------------------|------------|------|
| R   | R <sup>2</sup> | Adj. R <sup>2</sup> | Std. Error | Sig  | R                            | R <sup>2</sup> | Adj. R <sup>2</sup> | Std. Error | Sig  |
| .832  | .693           | .687                | .26490     | .000 | .777                         | .604           | .597                | .30056     | .000 |
| R square change .693  |                |                     |            |      | R square change .604         |                |                     |            |      |
| a. Predictors: (Constant), Emotional Intelligence, Spiritual Intelligence |                |                     |            |      |                              |                |                     |            |      |
| b. Dependent Variables: Job Satisfaction, Turnover Intention.             |                |                     |            |      |                              |                |                     |            |      |

The goodness fit of the model is ascertained using an ANOVA, as shown in table 10 below. The statistical F-test is used to determine how well the regression equation fits the data. In this study, the F-values captured in both models are 129.610 and 87.835, which are significant at the 5% level, indicating that the independent variables helped explain some of the variations in job satisfaction and turnover intention. ANOVA outcome shows the overall model was significant. The independent variables were good joint explanatory determinants of job satisfaction and turnover intention.

Table 10 - ANOVA

| Models →  | Model 1 – Job Satisfaction |     |         |      | Model 2 – Turnover Intention |     |        |      |
|---|----------------------------|-----|---------|------|------------------------------|-----|--------|------|
|   | Sum of squares             | df  | F       | Sig. | Sum of squares               | Df  | F      | Sig. |
| <b>Regression</b>   | 18.189                     | 2   | 129.610 | .000 | 15.870                       | 2   | 87.835 | .000 |
| <b>Residual</b>   | 8.570                      | 115 |         |      | 10.389                       | 115 |        |      |
| <b>Total</b>  | 26.259                     | 117 |         |      | 26.259                       | 117 |        |      |
| a. Predictors: (Constant), Emotional Intelligence, Spiritual Intelligence |                            |     |         |      |                              |     |        |      |
| b. Dependent Variables: Job Satisfaction, Turnover Intention.             |                            |     |         |      |                              |     |        |      |

The standardized Beta coefficients give a measure of the contribution of each variable in the models. An enormous value shows a unit change in the predictor variables has a large effect on the criterion variables. The t and significant (P) values give a rough indication of each predictor variable's impact.

Using a confidence interval of 95%, a 5% level of significance, and assuming all determinants are zero concerning the regression models, job satisfaction and turnover intention recorded Beta values of 0.241 and 0.688 respectively in the two models in table 4.8. With models 1 and 2, as depicted by table 4.8, emotional intelligence records a B value of 0.461 and 0.255, respectively. This is also significant at p=0.000 in both models. This means a unit change of 0.461 and 0.255 in emotional intelligence will lead to a 0.461 and 0.255 change in job satisfaction and turnover intention, respectively. It also means EI has a positive and significant impact on job satisfaction and turnover intention. The outcome of the study on the fact that emotional intelligence has a positive and significant effect on job satisfaction in line with studies such as El-Badawy & Magdy (2015), Sy et al. (2006), and Sony & Mekoth (2016b), which also concluded that emotional intelligence has a positive and significant impact of the job satisfaction of employees using different population of the study. According to them, employees who exhibit a high level of emotional intelligence are mostly satisfied with their job.

Furthermore, the outcome of the study shows that emotional Intelligence positive and significant impact on turnover intention. This also supports the conclusions reached by studies such as Jung & Yoon (2012), Trivellas

et al. (2013), and Feyerabend et al. (2018), who through their studies concluded that emotional intelligence influences turnover intentions. Based on the above evidence, hypotheses 1 and 3 are accepted.

About models 1 and 2 in table 4.8, spiritual intelligence records a B-value of 0.256 and -0.164, respectively. This was also significant with p-values of 0.004 and 0.210. This means SI has a positive and significant impact on job satisfaction. However, SI has a negative and insignificant impact on turnover intention. Awais et al. (2015) concluded that spiritual intelligence is a significant and positive relationship between spiritual intelligence and job satisfaction. Previous studies such as (Isfahani & Nobakht, 2013; Kaur, 2013; Nodehi & Nehardani, 2013) findings indicates that their spiritual intelligence has a significant impact on job satisfaction. The outcome of this study agrees with the conclusions drawn by these researchers.

Also, the outcome of previous research works such as (Gupta et al., 2014; Petrus et al., 2018; Rashvand & Bahrevar, 2013) also established a negative relationship between spiritual intelligence and turnover intention. The study's result supports these previous conclusions made in the face of the evidence provided in table 11 below. On this basis, the study accepts hypothesis 2 but reject hypothesis 4.

Furthermore, the regression models with the Beta values now becomes:

$$JS = 0.241 + 0.461X_1 + 0.256X_2 + \mu_i \quad \text{equation 1}$$

$$TI = 0.688 + 0.255X_1 - 0.164X_2 + \mu_i \quad \text{equation 2}$$

*Table 11 - Coefficient correlation*

| Variable          | Model 1 – Job Satisfaction |          |             | Model 2 – Turnover Intention |          |             |
|-------------------|----------------------------|----------|-------------|------------------------------|----------|-------------|
|                   | <b>B</b>                   | <b>t</b> | <b>Sig.</b> | <b>B</b>                     | <b>T</b> | <b>Sig.</b> |
| <b>(constant)</b> | .241                       | 1.109    | .270        | .688                         | 6.463    | .000        |
| <b>EI</b>         | .461                       | 6.304    | .000        | .255                         | 5.128    | .000        |
| <b>SI</b>         | .256                       | 5.914    | .004        | -.164                        | 2.305    | .210        |

a. Dependent Variables: Job Satisfaction, Turnover Intention

## Conclusions

The study walks on the tangent of exploring the impact of emotional and spiritual intelligence on job satisfaction and turnover intention using evidence emanating from employees in Ghana's mobile telecommunication companies. Firstly, the study's outcome shows that emotional intelligence has an impact on the job satisfaction and turnover intention of the employees within these companies. Regarding the relationship between EI and job satisfaction, the relationship was positive and significant. Regarding the relationship between EI and turnover intention, the relationship was found to be positive and significant. This indicates that their emotional intelligence influences job satisfaction and the decision to either stay with or part ways with an organization of employees from these companies. Secondly, the study's outcome gives evidence that spiritual intelligence has a positive and significant impact on job satisfaction but has a negative and insignificant effect on turnover intention. This implies that the job satisfaction of employees from the companies is affected by their spiritual intelligence. On the contrary, it could be deduced that their turnover intentions are not affected by their spiritual intelligence. Based on the conclusions drawn above, the hypothesis H1, H2, H3 were all accepted, and H4 rejected.

## Implications of the Research

This study will augment existing business literature concerning theory building. Firstly, from a theoretical perspective, some past research works have analyzed emotional intelligence on job satisfaction, emotional Intelligence on turnover intention, spiritual intelligence on job satisfaction, and spiritual intelligence on turnover

intention. However, this study may be the first to combine these variables to examine their relationship in the Ghanaian context and relation to the employees in the mobile telecommunication companies. These companies deal a lot with customers and have a large workforce and therefore require human connections. Thus, it would be appropriate for management and employees to have a clear understanding and appreciate issues regarding the causal relationships between emotional intelligence, spiritual intelligence, job satisfaction, and turnover intention. Additionally, the intensive labor and the hospitality orientation of the selected mobile telecommunication companies towards their customers would require employees within the industry to manage their emotional and spiritual intelligence because they are critical factors that come to play in when managing human resources and serving customers' organizations.

Furthermore, to improve organizational outcomes, emotional and spiritual intelligence among employees must be improved. Employees could be oriented and trained to shape their emotional and spiritual intelligence to enhance service delivery and enhance the organization in the long run.

### Limitations and Recommendations

The sample size of the study is the first limitation of the study. This is because the sample size is small and not enough for the results obtained to be generalized. An expansion of the sample size may change the outcome of the study. Also, the study selected three prominent mobile telecommunication companies and left other telecommunication companies, unattended. Jurisdiction wise, the study limited itself to the second-largest city in Ghana, which is Kumasi Metropolis.

Future researchers could make an effort to expand the population of study to cover all other mobile telecommunication companies in the country or conduct research using these variables of the study in a different business sector. Moreover, gender and age could also be employed to moderate the relationships among these constructs. The study's independent variables could also be used and measure their impact on elements such as job performance and employee loyalty.

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# Do Intrinsic Rewards Matter on Motivation? Evidence from Primary School Teachers of Bangladesh

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**Purpose-** This study investigates the impact of intrinsic rewards (Recognition, Training and Development, Work Environment, Participation in Decision Making, and Workplace Flexibility) on primary school teachers' motivation at the workplace.

**Design/Methodology-** A survey was conducted using a 5 Likert scale questionnaire among the teachers of different primary schools across Bangladesh. A total of 200 data was gathered through random sampling. SPSS 22.0 is used for analyzing the data. The study employed multiple regression and ANOVA, correlation, reliability test, and descriptive statistics to draw the findings.

**Findings-** The study revealed that intrinsic rewards have a significant effect on teachers' motivation. All the studied variables (Recognition, Training and Development, Work Environment, Participation in Decision Making, and Workplace Flexibility) have found a statistically significant relationship with Motivation. Moreover, recognition and work environment showed the most robust relationships with teachers' motivation.

**Practical Implications-** Organizations can use this study's results to comprehend the effect of intrinsic or non-financial rewards on employee motivation. Thus, the research findings could help similar institutions design an appropriate reward package with adequate intrinsic rewards to motivate their employees and ensure better performance at work.

## Introduction

In this modern world of business, human resource plays the central role of any organization. So, it is essential to fulfill the needs of human resources to ensure motivation at workplace (Korlén, Essén, Lindgren, Amer-Wahlin, & von Thiele Schwarz, 2017). Motivation encourages employees to be more productive and committed to their job (Denton, 1987). It drives an individual towards achieving both individual and organizational goals (Hughes, 2012). Motivation is significant because it urges people to perform well at their work. Lack of motivation may decrease employees' performance even they have the required skills and knowledge (Hameed, Ramzan, & Zubair, 2014). Motivation boosts the employees' morale and encourages them willingly give their best efforts to accomplish the assigned tasks (Pinto & dos Santos, 2018).

The rewarding organizational system plays an essential role in employees' level of motivation. A well organized and fair reward system positively affects employee motivation (Shafiq & Naseem, 2011). Rewards can be either extrinsic or intrinsic (Gkorezis & Kastritsi, 2017). Various forms of payment such as salary and wages and other benefits (bonuses, allowances, medical claims, insurance plan, profit or gain sharing program etc.) are extrinsic rewards that have a relationship with the monetary aspect of motivation (Pinto & dos Santos, 2018). On the other hand, intrinsic rewards are rewards where an employee does not derive any material gain or financial benefits. Such rewards have the most significant impact on employee behavior (Tausif, 2012). Intrinsic rewards include achievement, praise or recognition, advancement, autonomy or freedom, responsibility, the work itself, the working condition, involvement in decision making, ability utilization, growth or development of skills, job security, etc. (Hughes, 2012). Though monetary rewards play a significant role in employee motivation as well as non-monetary rewards cannot be ignored. Intrinsic rewards are the decisive determinant of work motivation and tend to have a longer-lasting effect than monetary rewards (Yousaf, Latif, Aslam, & Saddiqui, 2014).

Nowadays, employees are realizing the essence of intrinsic rewards to being motivated and continue their service. Thus, efforts must be required to motivate employees different from a few years ago (Gkorezis & Kastritsi, 2017). Motivation does not always depend upon money (Ahmed, Mohamed, Oyagi, & Tirimba, 2015). Employees today are looking forward to a suitable working environment that stimulates them to be motivated. Thus, organizations are focusing more on intrinsic rewards today to motivate their employees to accomplish organizational goals and compete in the global market (Yusoff & Kian, 2013). Optimal companies don't miss any opportunity to flourish their employees' motivation through non-monetary rewards (Korlén et al., 2017). Several research works related to rewards and employee motivation from different industries have been found in Bangladesh but are not focused on the primary education segment. Primary school teachers play the core role to teach children regarding their necessary foundation of knowledge. So, this research aims at ascertaining the practice of intrinsic or non-financial rewards in the primary schools of Bangladesh and its effect on the teachers' motivation at the workplace.

## Literature Review

### Motivation

Motivation is a psychological outcome (Ostroff, 1992) that occurs from the interaction between an employee and their work environment (Beardwell & Claydon, 2007). It is a combination of different processes that impact and directs employees' behavior to attain the goal. Employees who are motivated tend to work the hardest and fulfil all their responsibilities at work (Gkorezis & Kastritsi, 2017). Moreover, motivation expresses that employees are valuable in the organization (Ivancevich & Matteson, 1988). Thus, motivation is important to achieve organizational objectives and can be applied in different forms for changing employees' morale, attitude, behaviors, etc. (Hameed et al., 2014). The development and success of a company mostly depends on the level



of motivation of its workforce (Armstrong, 1999). Thus, any organization must identify what motivates its employees (Armstrong & Murlis, 2007).

### **Intrinsic Rewards**

Intrinsic rewards are such reward system where employees enjoy psychological satisfaction and are mentally rewarded (Armstrong & Brown, 2006). Intrinsic rewards, also known as non-financial or non-monetary rewards. These are kind of rewards where employees do not get any monetary benefits or gains (Wasiu & Adebajo, 2014). Intrinsic rewards are intangible in nature but could drive employees towards motivation and provide long-run benefits to the organization. Examples of intrinsic rewards include appreciation for work, development opportunities, work environment, autonomy, participation in decision-making or being involved in something (Nyandema & Were, 2014). Some researchers also found workplace flexibility, career development plans, training and development, growth prospects, and good supervisory relations as the components of intrinsic rewards (Bari, Arif, & Shoaib, 2013).

### **Recognition**

Recognition is appreciation to the employees' for their effort to accomplish the desired goal of the organization or assigned responsibilities (Baskar & Prakash Rajkumar, 2015). It acknowledges the employees for exemplary performance. The purpose of employee recognition in the workplace is to reinforce particular behaviors or practices that results in better performance. Recognition is a major element of intrinsic reward, ensuring a higher and extended-term return to the organization (Robbins, 2009). It allows employees to realize that they are valued and appreciated by the organization and feel worthy of being thankful (Board, 2007). One of the biggest motivators for employees is to be held in high esteem by their employers and peers (Flynn, 1998). Recognition makes the workforce more enthusiastic and gradually increases their level of motivation. It also improves employees' self-esteem and confidence and increases their interest in the job (Nelson, 1994).

### **Training and Development**

Training is a systematic process of developing employees' attitudes and skills to perform a task more accurately (Armstrong & Brown, 2006). Training is often referred to as imparting specific skills and education for doing a particular job (Dabale, Jagero, & Nyauchi, 2014). On the other hand, development is the overall growth of an employee to perform the present task better and increase the potential for future challenges (Kulkarni, 2013). Training and development are aimed at flourishing competencies for individual and organizational growth (Oribabor, 2000). It improves employee performances and builds the basement for career growth (Salas & Cannon-Bowers, 2000). Organizations conduct training and development programs to advance quality and productivity and minimize cost and errors (Bebchuk, K, & U, 2011). So, these programs accelerate employee morale and motivation at the workplace (Naong, 2014).

### **Work Environment**

The work environment is an essential intrinsic reward for ensuring employee motivation (Wasiu & Adebajo, 2014). The work environment is generally the surroundings of an employee where he or she operates. It can consist of the physical setting as buildings, office temperature, working tools or equipment, and all other facilities as housing, transportation, medical and recreational facilities, etc. (Sila, 2014). But the working environment also includes the psychological aspects of how work is organized, such as- work processes or procedures and well-being at work (Aarabi, Subramaniam, & Akeel, 2013).

It can also involve social interactions at the workplace, including interactions with peers, subordinates, and managers (Halbesleben & Wheeler, 2007). The work environment can highly influence employees' minds about their willingness to work (Hackman & Oldham, 1980). A bad working environment can kill the motivation even

the keenest staff while a sound working environment makes the employee feel good, alleviate their stress, improve performances and motivation (Aarabi et al., 2013).

## Participation in Decision Making

Employee participation in decision making means when employees are asked about their opinions in various organizational matters rather than just acting on orders (Wagner III, 1994). It involves decentralizing power within the organization to individual decision-makers (Wegge et al., 2011). Such participation encourages employees to have greater control and independence toward the work, which mitigate the gap between the management and the employees (Noah, 2008). When employees participate in decision-making, they become more motivated to implement the decision as it becomes their own (Smith & Brannick, 1990). Such involvement makes employees more transparent regarding their work and improves their performances. Participation in decision making makes employees more committed toward the organization and its goal (Ford & Myron, 1995).

## Workplace Flexibility

Ensuring workplace flexibility is a way to provide an intrinsic reward to the employees. It involves allowing the employees to choose their working hours, location, or even tasks (Bal & De Lange, 2014). The introduction of flexible working arrangements (FWAs) into organizations primarily acts to ensure flexibility at the workplace (Wayne, Casper, Matthews, & Allen, 2013). It enables employees to balance their work and personal life, and the employees also could get quality time to dedicate to their families and hobbies (Richman, Civian, Shannon, Jeffrey Hill, & Brennan, 2008). Workplace flexibility makes employees feel empowered and independent by giving them the chance to organize their work schedules based on their preferences (Joyce, Pabayo, Critchley, & Bambra, 2010). It increases employee motivation and helps in attracting and retaining valued employees in the long run (Zlate, 2004).

## Relationship between the Dependent and Independent Variables-

### *Motivation and Recognition*

- Recognition is significantly related to work motivation (Board, 2007).
- Recognition is one of the biggest motivators for employees (Baskar & Prakash Rajkumar, 2015).
- Recognition accelerates the level of motivation (Danish & Usman, 2010).
- The primary component of motivation is to be recognized (Robbins, 2009).

### *Motivation and Training & Development-*

- Training and development lead to work motivation (Naong, 2014).
- The employees who take part in the training programs are more motivated than those who do not participate (Bebchuk et al., 2011).
- Training and development programs boost employee motivation (Salas & Cannon-Bowers, 2000).
- Training programs play a crucial role in motivating employees positively (Güllü, 2016).

### *Motivation and Work Environment-*

- Work environment leads to employee motivation (Wasiu & Adebajo, 2014).
- The work environment is interconnected with employee motivation (Chan & Drasgow, 2001)
- A pleasant working environment helps to improve motivation (Halbesleben & Wheeler, 2007)
- A sound working environment motivates employees positively (Aarabi et al., 2013).

### ***Motivation and Participation in Decision Making-***

- Involvement in decision making is a useful motivational tool (Noah, 2008).
- Participation in the workplace boost employee motivation (Cotton, 1993).
- Motivation has a statistically significant relationship with employee participation in decision making (Wagner III, 1994).
- The employees become more motivated when they are involved in decision-making (Wegge et al., 2011).

### ***Motivation and Workplace Flexibility-***

- Flexible working practices make employees more motivated (Richman et al., 2008).
- Workplace flexibility increases employee motivation (Kossek & Thompson, 2016).
- Workplace flexibility acts as precisely what organizations need to motivate their employees (Joyce et al., 2010).
- Flexible working leads to increased workforce motivation (Hornung, Rousseau, & Glaser, 2008).

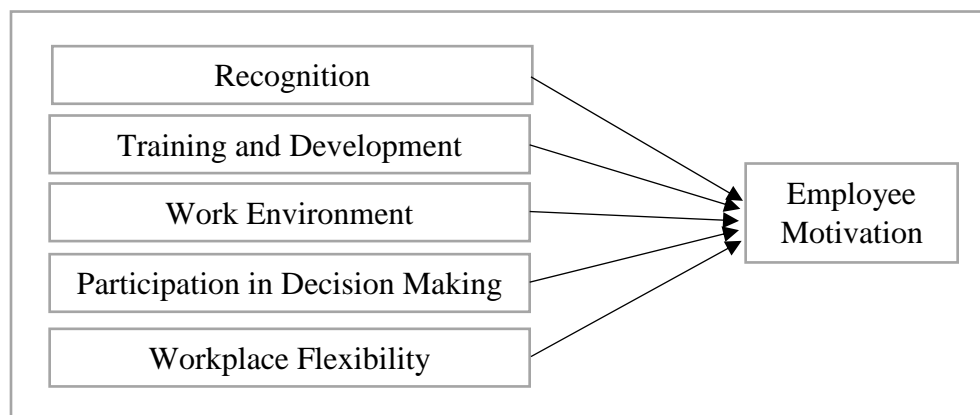
## **Methodology**

### **Sample and Data Source**

To conduct the study, a sample of 200 teachers were taken from different primary schools across Bangladesh. A survey questionnaire was used to collect preliminary data through random sampling. The questionnaire contains 5 Likert- scale questions from 1- strongly disagree to 5- strongly agree. Secondary data has been used in the study to construct the theoretical parts and to select the research variables. The secondary data was collected from several published research articles and peer-reviewed papers.

### **Analysis**

Data analysis was carried out with SPSS 22 software. Reliability analysis was done for the questionnaire. The correlation was computed to assess the research variables' internal relationships and descriptive statistics for all the study demographic questions. Finally, multiple regression was employed for measuring the effect of all independent variables on the dependent variable and ANOVA has been used to show the general significance of the studied model.



*Figure 1 - Proposed Research Model*

## Research Hypothesis

**H1:** There is a significant relationship between Recognition and Motivation

**H2:** There is a significant relationship between Training & Development and Motivation

**H3:** There is a significant relationship between Work Environment and Motivation

**H4:** There is a significant relationship between Participation in Decision Making and Motivation

**H5:** There is a significant relationship between Workplace Flexibility and Motivation

## Data Analysis and Findings

*Table 1 - Descriptive Statistics*

| Demographics          | Categories                | Frequency | Percent |
|-----------------------|---------------------------|-----------|---------|
| <b>Gender</b>         | Male                      | 87        | 43.5    |
|                       | Female                    | 113       | 56.5    |
| <b>Age</b>            | 20-30 Years               | 88        | 44.0    |
|                       | 31- 40 Years              | 68        | 34.0    |
|                       | 41-50 Years               | 32        | 16.0    |
|                       | Above 50 Years            | 12        | 6.0     |
|                       | Less than five years      | 91        | 45.5    |
| <b>Job Experience</b> | 6 to 10 Years             | 41        | 20.5    |
|                       | 11 to 15 Years            | 34        | 17.0    |
|                       | 16 to 20 Years            | 19        | 9.5     |
|                       | Above 20 Years            | 15        | 7.5     |
|                       | HSC                       | 57        | 28.5    |
| <b>Education</b>      | Graduation (Running)      | 46        | 23      |
|                       | Graduation                | 71        | 35.5    |
|                       | Post-graduation (Running) | 06        | 3       |
|                       | Post-graduation or Above  | 20        | 10      |

Table 1 represents the respondents' demographic profile of this study. In this study, Female respondents were 113 (56.5%), slightly higher than Male respondents 87 (43.5%). In age, most of the participants were from 20-30 years old, 88 (40.00%). Whereas 31-40 years were 68 (34.00%), 41- 50 years were 32 (16.00%) and above 50 years were 12 (6.00). In the respondents' experience of doing the job, most of the respondents had less than five years of job experience were 91 (45.5%). About 6 to 10 years job experiences were 41 (20.5%), 11 to 15 years were 34 (17.0%), 16 to 20 years were 19 (9.5%) and above 20 years were 15 (7.5%). Finally, in terms of the respondents' education, mostly were from Graduate level 71(35.5%) and up to HSC were 57 (28.5%), Graduation (running) were 46 (23.0%), Post-graduation (running) were 06 (3.0%) and Post-graduation or above were 20 (10.0%).

*Table 2 - Reliability Test (Summary of the Cronbach's Alpha)*

| Variables                        | Number of Items | Cronbach Alpha ( $\alpha$ ) |
|----------------------------------|-----------------|-----------------------------|
| Recognition                      | 4               | .726                        |
| Training and Development         | 5               | .705                        |
| Work Environment                 | 4               | .712                        |
| Participation in decision making | 3               | .784                        |
| Workplace Flexibility            | 4               | .856                        |
| Motivation                       | 3               | .724                        |

Table 2 depicts the reliability test of the study. Here, six sets of reliability tests were run and showed the Alpha value of different constructs and the number of items used for each construct to get the standard Cronbach's Alpha value ( $> 0.70$ ). The table shows Cronbach's Alpha ( $\alpha$ ) values for Recognition, Training, and Development, Work Environment, Participation in Decision Making, Workplace Flexibility and Motivation respectively as .726, .705, .712, .784, .856, and .724, which are ( $\alpha$ )  $> 0.70$ , which ensures that the reliability of the survey questions are acceptable for this study. The reliability test also showed that various constructs' fair values vary between 0.705 and 0.856 (Table 2).

Table 3 - Correlation Analysis

|            | MV      | R     | TD      | WE     | PDM  | WF |
|------------|---------|-------|---------|--------|------|----|
| <b>MV</b>  | 1       |       |         |        |      |    |
| <b>R</b>   | .214**  | 1     |         |        |      |    |
| <b>TD</b>  | .256**  | -.004 | 1       |        |      |    |
| <b>WE</b>  | .273**  | .002  | .265 ** | 1      |      |    |
| <b>PDM</b> | -.125** | -.024 | .178*   | .161 * | 1    |    |
| <b>WF</b>  | -.253** | .087  | -.030   | -.065  | .039 | 1  |

**\*\* correlation is significant at the 0.01 level (2-tailed)**  
**\*Correlation is significant at the 0.05 level (2-tailed)**

Table 3 represents the correlations among all the constructs of this study. The result revealed that motivation positively correlates with recognition (.214\*\*) or 21.4% at 99 percent confident interval and significant at the 0.01 level (.000). The study found that motivation was positively correlated with two other constructs: training and development (.256\*\* or 25.6%, .000) and work environment (.273 or 27.3%, .000). On the other hand, motivation has negative correlation with participation in decision making (-.125 or -12.5%, .000) and Workplace Flexibility (-.253\*\* or -25.3%, .000). In addition, recognition is positively correlated with work environment (.002 or 2%, .000) and workplace flexibility (.087 or 8.7%, .000). Consequently, recognition negatively correlated with training and development (-.004 or -.4%, .954) and participation in decision making (-.024 or -2.4 %, .000). Moreover, training and development have a positive association with work environment (.265\*\* or 26.5%, .000) and participation in decision making (.178\* or 17.8%, .000) but have a negative relationship with workplace flexibility (-.030 or -3%, .000). Moreover, the work environment has found a positive relationship with participation in decision making (.161\* or 16.1%, .000) but found a negative relationship with workplace flexibility (-.065 or -6.5%, .000). Finally, decision-making has found a tiny relation to workplace flexibility (.039 or 3.9%, .000).

Table 4 - Regression Analysis

| <b>Model Summary</b> |                   |                      |                          |                                       |                      |
|----------------------|-------------------|----------------------|--------------------------|---------------------------------------|----------------------|
| <b>Model</b>         | <b>R</b>          | <b>R<sup>2</sup></b> | <b>Adjusted R Square</b> | <b>Std. The error of the Estimate</b> | <b>Durbin-Watson</b> |
| <b>1</b>             | .503 <sup>a</sup> | .253                 | .234                     | .38246                                | 1.071                |

**a. Predictors: (Constant) Recognition, Training, and Development, Work Environment, Participation in Decision Making, Workplace Flexibility**  
**b. Dependent Variable: Motivation**

Table 4 explains the model summary of this study. The regression model shows a good fit with F value 13.150 ( $p < .05$ ) and R Square value of .253, indicating 25.3% of the variation in the motivation can be predicted from the independent variables (Recognition, Training, and Development, Work Environment, Participation in Decision Making and Workplace Flexibility). Thus, the proposed research model is statistically significant.



Table 5 - ANOVA

| ANOVA <sup>a</sup>   |            |                |     |             |        |                   |
|--|------------|----------------|-----|-------------|--------|-------------------|
|  | Model      | Sum of Squares | df  | Mean Square | F      | Sig.              |
| 1  | Regression | 9.618          | 5   | 1.924       | 13.150 | .000 <sup>b</sup> |
|  | Residual   | 28.377         | 194 | .146        |        |                   |
|  | Total      | 37.995         | 199 |             |        |                   |
| <b>a. Dependent Variable: Motivation</b>   |            |                |     |             |        |                   |
| <b>b. Predictors: (Constant) Recognition, Training, and Development, Work Environment, Participation in Decision Making, Workplace Flexibility</b> |            |                |     |             |        |                   |

Table 5 demonstrates the ANOVA test of this study, which means the study's general significance (s). In this study, the p-value is denoted as (0.000), which is much smaller than 0.05 or 5% level of significance. Therefore we can say that the proposed research model is significant ( $F=13.150$ ;  $p<.05$ ).

Table 6 - Summary of Coefficients

| Coefficients <sup>a</sup>                |                                  |                             |            |                           |       |      |                         |
|--|----------------------------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|
| Model                                    |                                  | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. | Collinearity Statistics |
|  |                                  | B                           | Std. Error | Beta                      |       |      | Tolerance VIF           |
| 1  | (Constant)                       | 3.003                       | .464       |                           | 6.466 | .000 |                         |
|  | Recognition                      | .211                        | .057       | .231                      | 3.705 | .000 | .992 1.009              |
|  | Training and Development         | .218                        | .063       | .223                      | 3.429 | .001 | .911 1.098              |
|  | Work Environment                 | .224                        | .064       | .227                      | 3.495 | .001 | .913 1.096              |
|  | Participation in Decision Making | -.211                       | .072       | -.186                     | -2.92 | .004 | .951 1.052              |
|  | Workplace Flexibility            | -.233                       | .060       | -.244                     | -3.90 | .000 | .985 1.015              |
| <b>a. Dependent Variable: Motivation</b> |                                  |                             |            |                           |       |      |                         |

Table 6, demonstrates the summary of the coefficients of this study. Whereas model 1 depicts, the relationship between recognition and motivation is statistically significant ( $\beta = .231$ ,  $t = 3.705$ ,  $p = 0.000 < 0.05$ ). So, H1 is accepted. On the other hand, training and development has found statistically significant relation with motivation ( $\beta = .223$ ,  $t = 3.429$ ,  $p = .001 < 0.05$ ). So, hypothesis H2 is supported. Moreover, work environment ( $\beta = .227$ ,  $t = 3.495$ ,  $p = 0.001 < 0.05$ ) has found statistically significant with motivation. Thus, hypothesis H3 is accepted. In addition, participation in decision making ( $\beta = -.186$ ,  $t = -2.92$ ,  $p = 0.004 < 0.05$ ) and workplace flexibility ( $\beta = -.244$ ,  $t = -3.90$ ,  $p = 0.000 < 0.05$ ) have found significant inverse relationship with motivation. Hence, hypothesis H4 and H5 are supported.

## Discussion

This study aims to address the motivation of primary school teachers through intrinsic rewards in Bangladesh. To attain the objective, the study tried to measure five non-financial factors' impact on teachers' motivation. This study helps test the established hypothesis and make a clear conception over the relationships among

recognition, training and development, work environment, participation in decision-making, workplace flexibility, and employee motivation. The output showed that recognition and employee motivation are positively associated with each other and found a statistically significant relationship with employee motivation. This seems similar to previous studies' (Ali & Ahmed, 2009). This study also established that employees' training and development has a positive and significant relationship with employee motivation. Prior study also confirmed the same result (Kefay & Kero, 2019).

Additionally, the study found that the work environment and employee motivation is positively correlated and has statistically significantly affect on employee motivation. Previous studies have found similar results (Kumar, Hossain, & Nasrin, 2015). Moreover, the study confirmed a statistically significant relationship between employee motivation and their participation in the decision-making process. Same result was found in the study (Bhuiyan, 2010). Finally, the results revealed that workplace flexibility has a significant impact on employee motivation. Many previous studies have found the same findings (Setiyani, Djumarno, Riyanto, & Nawangsari, 2019). The results also confirmed that recognition and work environment significantly impact primary school teachers' motivation over other non-financial constructs of this study.

## **Conclusion**

Motivation plays a significant role in boosting enthusiasm and lessening the frustration and fears of work among the employees. Motivated employees are more committed and provide a better output at work. Today's organizations are more focused on employee motivational issues and are trying to give much more effort to keep their employees motivated at work. Many studies have confirmed that employees are mostly motivated when they get reward(s) from their organization. Both extrinsic and intrinsic rewards are used to draw the employees' attention and make them motivated towards their duties or work. This study establishes that intrinsic rewards have a significant effect on primary school teachers' motivation in Bangladesh. Primarily, all employees focus on monetary issues rather than other matters while working for themselves or the organization. Their focal point is to earn money to satisfy their hunger. Human beings want to recognize their work, good working environment, flexibility, participation in the organizational decision, and proper training and development facilities to enhance their work efficiencies.

In many cases, it was found that these non-monetary rewards provide greater motivation for the employee rather than financial rewards. This study showed that various intrinsic rewards (recognition, work environment, training and development, participation in decision-making, and workplace flexibility) have a significant impact on primary school teachers' motivation to continue their best effort in the organization. So, every organization should consider the issues of intrinsic rewards, especially the studied variables of this research, to motivate their employees. However, this study investigated a limited number of variables related to intrinsic rewards to measure employee motivation. Future research is required to uncover other new variables such as career advancement, job security, autonomy, supervisor support, etc., and their impact on employee motivation. Moreover, other geographical areas with different types of respondents could also be used in further studies.

## ***Research contribution***

This research mainly helps the primary education sector of Bangladesh. But the output of this study could also be employed on other service sectors or organizations. The research could help any organization to design an effective intrinsic reward system to motivate their employees. Factually, primary school teachers get less training and development facility than other service employees in Bangladesh. Moreover, they get engaged most of their working time and do not have flexibility at all. Most of the primary schools also don't have a sound and well-equipped working environment, and the teachers are also not allowed to have any involvement in decision making. They work hard but often don't get recognition for the effort. So, the relevant authority should consider

these issues and make appropriate policies to flourish various intrinsic rewards to enhance the teachers' motivation and retain them for more extended service.

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# Applications of Social Media in the Tourism Industry: A Review

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## Abstract

**Purpose-** This study aims to review and analyze the articles related to social media applications and their impact on the tourism industry.

**Methodology-** For conducting this study, three leading databases named Google Scholar, Science Direct, and EBSCO Host were used for data collection purposes, and the research was conducted in three phases. Selecting the database for collecting data was the first phase, which was carried out during the period between November 2020 to December 2020. In the second phase, screening of the collected data was done, and in the final stage, 46 articles were selected to conduct this study.

**Discussion-** Over the last decade, the rapid advancements in information and communication technology (ICTs) have had reflective impacts on the global tourism sector. Both researchers and professionals have acknowledged that social media applications have a significant impact on both suppliers and consumers of the tourism industry.

**Findings-** Based on the reviewed articles from the perspectives of the tourism consumers as well as the tourism suppliers, this study has found that consumers use social media in pre-during-post travel for searching different information and suppliers generally use social media for promotion, communication, management, research purposes.

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## Introduction

A great variety of virtual tools have been created by the invention of the internet and simultaneously, it has also contributed to the rise of social networks that have become prominent today. Different terms and virtual discoveries were created with the advent of the internet. In the 21<sup>st</sup> century, social networking services began with the chat names to impart chat communication in the forum (Kayumovich & Kamalovna, 2019). Social media is noticed in social and economic life in the modern world as it is one of the most vital online networking resources. Social media is the medium of interaction between individuals in which they build, share, and exchange knowledge and information in digital environments (Kaplan & Haenlein, 2010). In their study, Javed et al., (2020) mentioned that Cohen provided a meaningful description of social media by reviewing thirty separate social media meanings and explaining the essential characteristics of it. These characteristics are (1) social media requires internet-based software, platforms, and resources and therefore relies only on information and communication technology for technological operationalization; (2) social media denotes the channels of communication that facilitate the participants as well as the public to create and share content and collaborate, directing to omnipresent transforms; and (3) social media link its users within a virtual world which has an impact on people's actions in real life (Zeng & Gerritsen, 2014). Social media can be considered as a community of fully online-based services formed through the conceptual and technical substructure of Web 2.0. Moreover, the user-generated content is allowed to be shaped and produced (Zeng & Gerritsen, 2014). Several types of social media are listed below:

- Blogs are defined as formal website-published articles, journals, or newsletters. It is also considered the initial formation of web version 2 that assists the users while uploading online format data entries, pictures, videos, links, or other digital media. Since it allows its user to maintain the communication between them by posting a statement or comment, which is the central essence of social networking, this type of Web Version 2 may well be called social media. Content created by users and reciprocal or dual-track communication among the users is accommodated (Kennedy, et al., 2007; Hidayat & Are, 2018).
- Social Networking refers to a private website that operates on a broader network from where the users are stimulated to communicate between themselves to build a group (Kennedy, et al., 2007). Moreover, the social networking essential and notable characteristics include the use of accounts, personal sites, images, and messages to strengthen the user-to-user connection (Goeldner & Ritchie, 2011; Hidayat & Are, 2018).
- Content communities whose aim is to form social networking allow users to exchange media content between themselves (Goeldner & Ritchie, 2011; Hidayat & Are, 2018).

The analytical application of social media in the hospitality and tourism industry is considered as the most preferred area due to its incredible progress and evolution (Xiang, Du, Ma, & Fan, 2017). Social media manipulations converted into a significant social sensation and an intercontinental trend in the industrial sector (Hays, Page, & Buhalis, 2013). Consumer behavior in tourism has always been guided through the growth of information and communication technology (Buhali & Law, 2008) and, in particular, web 2.0, which has vitally altered the way users organize and purchase travel-related commodities (Fotis, Buhalis, & Rossides, 2012). The consumers' behavior does not sustain for a long time, and it keeps on changing over time. The advancement and the social media growth have a powerful stimulus on changing consumers' consumption, such as evaluating, selecting, and purchasing goods and services, which keeps the marketer in anxiety. It is challenging to set new strategies, policies, and tactics with consumer behavior changes (Leung, Sun, & Bai, 2017). Gretzel et al., (2008) anticipated that the usage of social media on travel is monumental. In 2008, 82 percent of online consumers of the USA were found to have reviewed online reviews, blogs, and other online input for their

buying decisions related to travel. The advancement of technology, mainly the inauguration of Web Version 2, which began in this modern age, contributed to the Social media formation, making it very important to market a tourist destination (Chan & Guillet, 2011; Goeldner & Ritchie, 2011).

Additionally, the prominence of social media is seen as the source of research data in numerous area such as the mechanism of customer decision-making, e-word of mouth, and travel recommendations have grown (Hudson & Thal, 2013; Ye, Law, Gu, & Chen, 2011; Kurashima, Iwata, Irie, & Fujimura, 2010; Cheng & Edwards, 2015). The World Tourism Organization recognizes the critical role of social networking in tourism. Visitors and business people use smartphones and tablets to provide reviews on places to go or wherever they are. The World Travel Monitor confirms that 40 percent of foreign tourists use smartphones to travel. They have access to the Internet from their smartphones; 40 percent for travel information, about 26 percent for travelers, 34 percent for hotel reservations and other travel-related services (Kayumovich & Kamalovna, 2019). With smartphones, travel, ideas, and feedback on Facebook, Twitter, or Flickr, three-thirds of international travelers access social networks. Social media can be used by all sectors as an essential tool for marketing, as the growth rate of social media is substantial. Since the industry has extensive trust primarily on destination credibility, customer sentiment, distribution of information, and positive word-of-mouth ads, the tourism industry is geared up to benefit from different platforms of social media (Gohil, 2015). The purpose of conducting this study is to review and analyze the articles related to the applications of social media and its influence on the tourism industry.

## Methodology

Selection of the database for collecting data was the first stage of this study; from November 2020 to December 2020, a data collection process has been conducted. The three most popular and largest databases have been used for data collection purposes named Google Scholar, Science Direct, and EBSCO Host. According to the suggestions of Leung et al., (2013), some keywords were used for identifying the related articles which have been published by different journals and available in online and those keywords are social media, technology, internet, tourism, consumer behavior, tourist behavior, holiday planning, promotion, marketing tools, distribution channel, communication, hotel, restaurant, hospitality. Articles were retrieved from different journals of the Tourism and hospitality domain due to the less availability of related published articles. After the data collection and doing a few rounds of screening, 46 articles were found relevant to that study published between 2008 to 2020 in the third stage. For checking the article's relevance with the study, the abstract and keywords of the article were analyzed. If the abstract and the keywords of the article were found relevant with the theme of the study then that article was selected for reviewing thoroughly where the objectives, methodology, and the findings of that article were analyzed for collecting the data and those data have been used for conducting the study. Finally, the number of articles were calculated where it was seen that the maximum number of articles were picked from the year of 2011 and 2019 (Figure: 1).

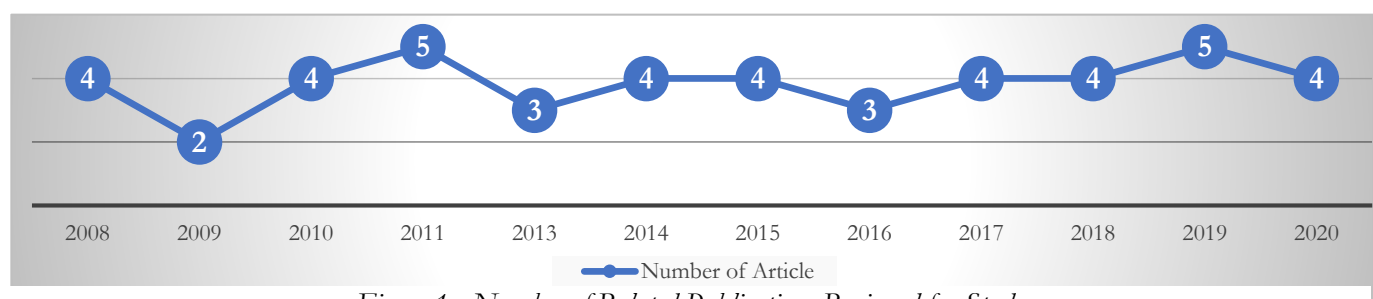


Figure 1 - Number of Related Publications Reviewed for Study

## Applications of Social Media in Tourism

As an emerging subject in the tourism industry, social media's position has been illustrated and researched progressively. Travel 2.0 is a new term that has been developed as a fresh concept which indicates the progress of social media's significance in travel and recent buyers in the travel industry (Chu, Deng, & Cheng, 2020; Baker & KaWon, 2019; Lo & Yao, 2019; Chang, Ku, & Chen, 2019; Mariani, Styven, & Ayeh, 2019). Social media plays an increasingly important role in many aspects of tourism, exclusively while searching information, making the decision and promoting tourism, focusing on the best applications to engage with customers through the platforms of social media (Sahoo & B.G, 2017). Apart from the influences on tourist consumption behavior, social media's evolution has influenced the research area related to tourism and hospitality. For the last twenty years, the researchers have acknowledged that social media has made it essential for tourists to decide and plan their trip (Zarezadeh, Rastegar, & Gretzel, 2018; Cholprasertsuk, Lawanwisut, & Thongrin, 2020). An excellent technique has been demonstrated to exploit social media to sell tourism products. Many countries and states view social media as a primary tool for supporting their tourism industries. An organization's social media marketing strategy describes how the organization utilizes social media resources (ex; Facebook, Twitter, and YouTube) to fulfill the organization's marketing target. The social media strategy helps to implement and promote eminent approaches offers insights on markets and consumers that are used to build and change the company's business strategy. The current approach used by the company's case study on the application of social media marketing specifies that the business plan is not entirely implemented. The company needs further decisions on optimizing the marketing resources available to win more customers based on the amendment strategy they are going towards in terms of using social media marketing to market their company (Gohil, 2015). Tussyadiah & Fesenmaier (2009), recommended that user Generated Content (UGC) has increasingly shaped destination visibility on social media and subsequent destination selection decisions. Indeed, UGC can provide travel consumers with incomparable, unparalleled, latest, and differentiated formats of information (Leung, Law, Hoof, & Buhalis, 2013).

## Applications of Social Media from the Consumers' Perspective

The latest Google research has shown that before going on a holiday, the internet is used as a planning resource by eighty-four percent of leisure travelers (Leung, Law, Hoof, & Buhalis, 2013). Xiang & Gretzel (2010) mentioned that the search results of Social networking are accounted for not less than one-tenth when analyzing the possibility that online travelers prefer social media material more while processing a web search. With the popularity of websites containing traveler-generated content, several scholars acknowledged the primary influence of social media in the pre-trip research process, also speculating that the primary motive of the application of the social media and the user-generated content (UGC) by travelers was to obtain travel-related information (Tussyadiah, Park, & Fesenmaier, 2011; Cox, Burgess, Sellitto, & Buultjens, 2009; Lo, Mckercher, Lo, Cheung, & Law, 2011; Huang, Basu, & Hsu, 2010). Xiang & Gretze (2010) stated that many of these social media platforms help customer share their observations, views, personal experiences, and thoughts related to travel which later on serve as information for the prospective travelers. A new study on American tourists revealed that social media inclines to be the leading hub of information when tourists make travel plans. This study also showed that searching and preparing for the tourist's potential tourism experience, their dependence on information technology increased highly (Xiang, Wang, O'Leary, & Fesenmaier, 2014). Check-in features in social media have created a new horizon in the tourism industry, Check-in helps the tourist to share their experience of a specific place, area, destination by tagging the exact location through the usage of GPS, and that allowed the potential consumers to enhance their tourism-related knowledge through the precise information regarding any sites which helps the marketers to build a relationship with the consumers that a sustain for a long term (Vu, Li, Law, & Zhang, 2017; Jin, Long, Zhang, Lin, & Joshi, 2016; Chen, et al., 2016; Roque & Raposo, 2016). Tourists have realized that social media is considered as an essential instrument for

them while choosing the destination for traveling, having food and beverages, and shopping compared to other tools. Simultaneously, users are becoming much more familiar with the Internet's encryption and personalized services (Wei, 2015). Moro & Rita (2018) stated that social media's application by any organization influences consumer perception towards a brand's products and services, such as customer satisfaction, outlook towards that brand, and purchase intention. For collecting information regarding travel planning, WOM is known as the significant exterior hub of details due to the more substantial trustworthiness of WOM between all other available sources. While purchasing a product, consumers usually prefer to create their perception based on the review of fellow consumers or their friends (Leung, Law, Hoof, & Buhalis, 2013).

## Applications of Social Media from the Suppliers' Perspective

Social media has played a prominent role in being future promotion tools and can impact the buying decision of the consumer. Social networking can draw future travelers by providing or even manipulating data around the destination. To quickly share information, they were given the opportunities of significant disclosure to a dynamic and collective form by social media as well as it has a substantial impact on different types of products, brands, services, locations, cultures, economic, political, and social because now people can talk about their views on the correlated issue (Hidayat & Are, 2018). The social networking sites have carried out the notable change in disseminating and exchanging information as a kind of information technology. They have gradually evolved into a direct sales channel that includes tourism delivery, bring changes to its work (Lewis & Bridger, 2001). The business of tourist destination has been modernized due to the touches of the internet as it can be used as the channel of distribution and the sources of information and the shared information, review, recommendation of the visitors helps to attract and reach the potential consumers from different geographical location (Kiráľová & Pavlíčka, 2015). The acceptance of smartphones makes the visitors able to browse social media conveniently and places through the Internet. It has a significant effect on searching for knowledge and behavior planning (Dan, Xiang, & Fesenmaier, 2014). Thus, it is clear that the Internet has conceptualized how tourists find and buy the products and services of tourism, changing the delivery of tourism services and products, making the combination of the design of tourism services and products more tailored. Social media has steadily rebuilt the business process in all businesses in the distribution networks for the participants of the distribution channel with the provisions of redefining their key competitiveness (Wei, 2015). Sharda & Ponnada (2008) mentioned that travel organizations might generate revenue by linking e-commerce websites and organizations' booking platforms with travel blogs. Noone et al., (2011) stated that the customers are being encouraged to book directly from the service providers' websites or organization's given link, which is attached on social media, rather than book it through a third party. They also suggested that revenue managers can use UGC on social media to develop effective strategies. Leung et al., (2013) stated that the suppliers could gather knowledge and information regarding the consumers' likes and dislikes by reviewing the comments posted by consumers on different online communities like TripAdvisor to determine what to minimize what to maximize. With one business model after another, social media-based entities have altered standard distribution strategies and steadily shown that product selectivity is less critical than trading convenience. Hidayat & Are (2018) stated that four important pillars influence the contact success rate across social media, which are:

- Set up efficient contact with the client.
- Collaborating with the client.
- Attempting to educate the client.
- Ensuring fun for the customers.

To promote the goods and services efficiently and effectively, these foundations were established. It is essential to develop a good relationship with the client to ensure its efficacy, being trustworthy and consistent with the material that has been released since the usual word for advertising is unable to sustain for long-term projects.



Depending on the topics under research and the form of contact, social media tends to affect communication either positively or negatively. To have a competitive product/service experience, social media requires the convergence of all marketing practices and uses convincing ads for marketers to understand. This new communication medium helps consumer relationships in the best way where electronic Word of Mouth (e-WOM) is critical. Due to product or service change, the e-WOM may increase tourist satisfaction (Živković, Gajic, & Brdar, 2014). At the same time, during the journey, e-WOM can address issues and questions. It can help while finding out about what visitors imagine and say about their demands and experience. However, the essential advantage is monitoring the organization's reputation/image, even reviewing current strategic strategies (Litvin, Goldsmith, & Pan, 2008). The usage of social media has two implications; first, by establishing a good and productive customer relationship that increases the company's loyalty. It can be used as a powerful tool for gathering feedback from the customer that can be used to attract new customers and retain existing customers (Leung, Law, Hoof, & Buhalis, 2013). Secondly, if not used correctly, the decline in customers' confidence and the brand's market value and managing this essential source of knowledge about strategic social media is the key that decides the consequence of the company's adoption of social media and revenues. UGC is increasingly being regarded on social media as a digital source of expertise for analyzing external and internal environmental studies. UGC's social media analysis could provide a clear and compelling concept of the consumers' characteristics by using particular social media apps. The data could be used for directing the expansion of the targeted ads and advertising information for separate social media apps (Noone, McGuire, & Rohlf, 2011). The tourism industry suppliers can maintain a strong relationship with the consumers by making proper effective strategy by observing the consumers' participation interaction, behavior, and thought from social media (John, Larke, & Kilgour, 2018; Winduwati & Putri, 2020) .

## Findings

Social media has been a convenient option to reach and connect at an unprecedented level with the masses. Individuals, corporations, and public figures also use social media as an advertisement platform. In the present decade, it is almost difficult to think about a future without social networks. It influences individuals' daily lives and impacts different industries, especially the tourism and hospitality industry, such as in promotion, market management, and analysis functions, due to their continued global growth. Social media provides tourism suppliers with the opportunity to be highly exposed to a diverse and integrated type to exchange information quickly. Nowadays people would like to share their opinion on the crucial topic. For the distribution channel players, social media has continuously rebuilt all companies' sales processes in the distribution networks to redefine their main competition. Social media are used for creating a healthy and positive customer relationship that improves the company's satisfaction; it could be an effective method for gaining customer input that is used to achieve potential consumers and maintain current customers. Social media is also used by the management in researching customers' characteristics. Social media has been accepted as an ideal route to maintain communication with the masses at a rocketing speed because of that the individuals as well as the organizations are using social media to reach their potential consumers. Social media helps the organizations to observe the demand for their product, their users' attitudes, and customer satisfaction levels which help the organizations to set different innovative and effective strategies and policies to meet the customer's needs apart from that social media can be used as a useful promotional tool as the potential consumers become more influenced by the social media's activities of a particular brand or organization. As a popular communication platform, an effective social media network will continue to disseminate information to those who need access.

Social media assist the tourist in their travel planning, and it has a significant influence on pre-during-post traveling. Tourists have now revealed that in comparison to other tools, social media is the essential element for them to make decisions on choosing the destination, catering, and shopping. Nowadays, social media has added another feature called check-in, which works with the help of GPS. Tourist can share their experience

regarding any specific tourist destination by tagging that place, which helps the potential tourist as they like to gather information before making travel plans. Many social media sites allow tourists to upload and express their travel-related comments, perspectives, and specific observations, which further act as feedback for others. At present, a world without social networks is almost hard to view. Social media has an impact on people's everyday lives and various businesses; particularly tourism and hospitality business, due to its continued global development, in factors such as promotional factors, business management factors, and research functions.

## Conclusion

The tourism and hospitality industry has been transformed a lot due to the evolution of the internet and its significant addition is social media, which has created a new horizon in the tourism industry. It has been recognized as a preferred path to connect and reach the masses at an exponential pace. Since social media can work as an advertising tool, individuals and the industry have used it to reach their potential consumers. A powerful social networking site can disseminate knowledge to those who necessitate access as a powerful tool for outreach. It is vibrant as the customers are informed of various useful information regarding the offers and the newly arrived services. Nowadays, a world without social networks is almost hard to imagine. Not only it has an impact on people's everyday lives, but also it affects various businesses, particularly tourism and hospitality, due to their continuous global development, in factors such as the promotion of different products and services, business management like setting strategies and tactics, and research functions to identify customer satisfaction, customers' involvement and attitude towards the brands. Since social media shares messages quickly and people follow them, it can be said that it is imminent for the tourism and hospitality industry to pay attention to any technological innovations that occur. By reviewing 46 articles regarding the application of social media in the tourism and hospitality industry, this study contributes by providing a clear overview about what researchers have found regarding the applications of social media in the tourism and hospitality industry from the period of 2008-2020 and this study will help the industry personnel and the academicians to understand how social media is using by the consumers and the suppliers of the tourism and hospitality industry. Future research can be conducted on analyzing social media advancement as Jang & Park (2011) suggested that for getting a comprehensible concept about social media applications in the tourism and hospitality industry, future research should be conducted to implement the content analysis in a quantitative approach for observing the methodological, topical, and authorship trends.

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